The New Edition of Downing's Landscape Gardening.

THE American public is greatly indebted to Henry Winthrop Sargent, Esq., for this new (the sixth) edition of the "Theory and Practice of Landscape Gardening:" it could not have been committed to abler hands. The additions consist of a supplement by Mr. Sargent, bringing the work up to the day, both on the best methods of making a country place, and an excellent account of the newer deciduous and evergreen plants lately introduced, both hardy and half-hardy.

This is done with a perfect understanding of the whole matter, and with an earnestness of purpose that will give universal satisfaction. Two styles of country places, he says, are attempted in this country: viz., a place

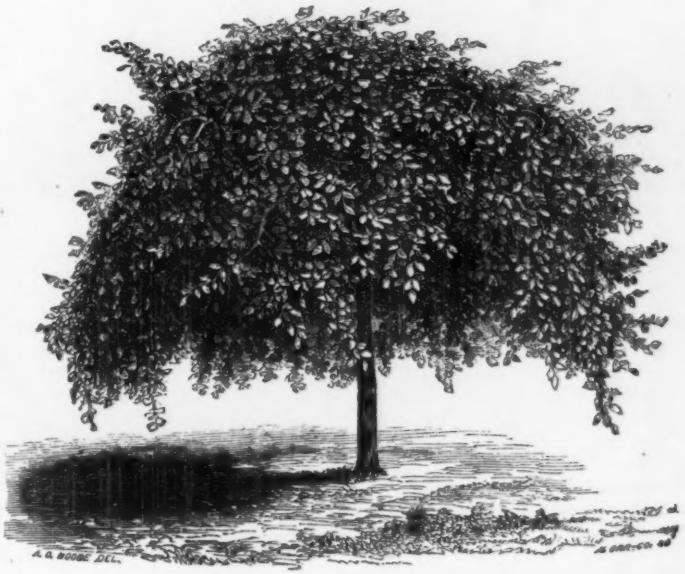


FIG. 92.—SCAMPSTON WEEPING ELM, at Wodenethe
Age, 6 yrs. Height, 7 ft. Circum., 36 ft.

without any trees, or a dense wood; in the first, the effects are to be produced by planting; in the second, mostly by the axe. Taking the two places he is best acquainted with,—Mr. H. H. Hunnewell's, near Boston, and his own on the North River,—as examples of the two modes, he illustrates the results, giving a decided preference to the first. He introduces us by superb steel engravings, to Mr. Hunnewell's beautiful mansion and grounds;

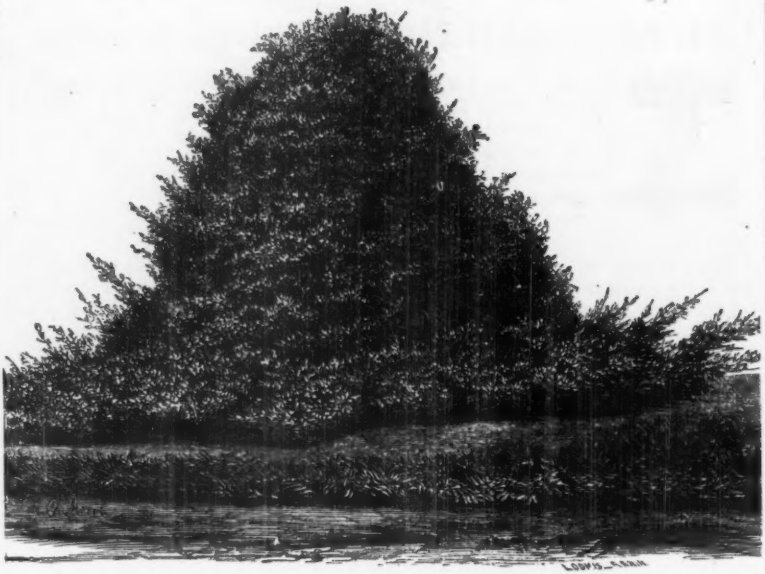


FIG. 94.—THE SCALED JUNIPER, at Woodlawn, Residence of R. S. Field, Esq., near Princeton, N. J. Height, 44 feet. Circumference, 29 feet.

in his own case to a fine picture of his own dwelling, and wood cuts of the grounds; we should have been glad to see the steel employed here also, but as the publisher has put little or no advance on the price of the volume, such a course would have been an unwarrantable expense. These steel plates are most admirably executed from ambrotypes, they are as admirable as the places themselves are each beautiful. Other illustrations of new ornamental trees are given; as a specimen we insert the foregoing.

These must be acknowledged to be surpassingly beautiful; and there are others of equal merit, drawn by the publisher himself, who holds a pencil rarely excelled in its ability to give the character of foliage.

At the risk of trespassing, we are anxious to present the two plates, figs. 35 and 36, exhibiting two lovely specimens in which we take especial interest.

Mr. Sargent's judicious method of planting, is to employ a quantity of stakes or poles, ten or twelve feet high, and by placing first a stake where he thinks a tree should be planted, and then several smaller stakes at such a distance around it as the proposed tree will extend to when fully grown. By carefully observing this collection of stakes from his point of view, which as a general rule should be the principal room of the house, the planter will at once see whether it is in the right place, whether it is too near the road or walk, or will injure a view. When satisfied by many

Fig. 35.—Weeping Larch, at Wodenethe. Age, 8 yrs. Height, 12 ft. Cir., 35 ft

Fig. 36.—Large-leaved Magnolia, at Laurel Hill Cemetery. Age, 10 yrs Ht, 30 ft

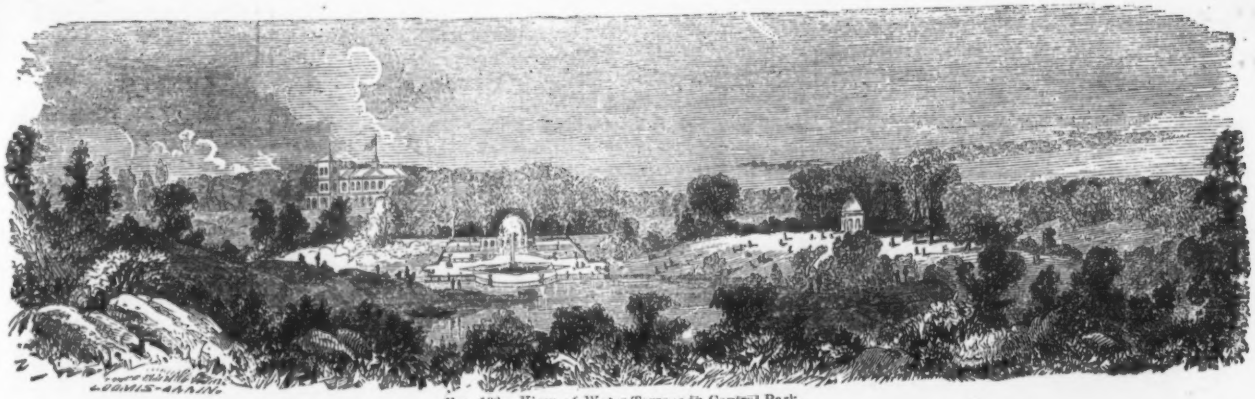


Fig. 103.—View of Water Terrace in Central Park.

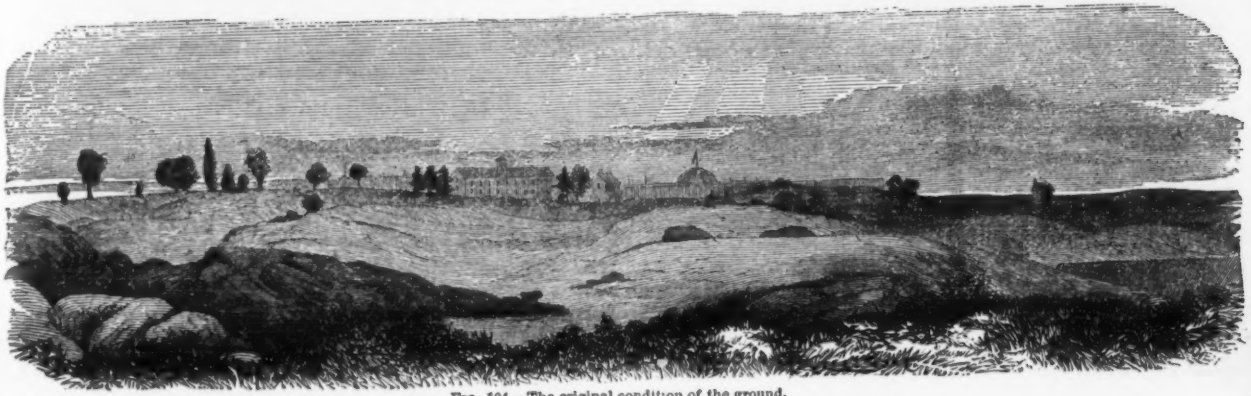


Fig. 104.—The original condition of the ground.

observations—and it will be well if made from many points of view, all, however, subservient to the principal point—that the centre stake is correctly placed, let him substitute for it a small stake eight or ten inches high, with the name of the tree to be planted there legibly written upon it. In the autumn or spring, let the hole be dug at leisure, properly and carefully prepared, and let a tree be selected from the border nursery (previously stocked for the purpose,) on a damp or rainy day, and as properly and carefully planted. Pursue this course with all the single trees, groups and masses, and if judiciously done the most complete satisfaction will be the result; because one may not only make up his own mind by studying these groups of poles, for weeks or months, even, but he can also have the advantage of criticisms from intelligent visitors; and if the poles are wrong it is much easier to remove them than the trees.

This is practical advice, but it is accompanied by the remark that it would be no more fair for a person new to planting, to be expected to make a fine picture in this way, than it would for a farmer to go to town and make a lawyer, a doctor or a merchant of himself, without study. You must employ a landscape gardener, of course.

The foregoing is a sample of the practical character of the "Supplement," which is full of valuable hints and carefully digested observations, drawn from extended experience in laying out and adorning an enchanting and almost fairy scene.

Of the value of the notes on trees and shrubs we may speak hereafter; suffice it now to say, that the learner will here find a guide that will make the work indispensable as a manual.

The historical notices, of which there are two too brief chapters, are capital; we are told much in few words, but those words have each a meaning.

The New York Park, and Llewellyn Park, at Orange, N. J., receive notices which will add much to the reader's appreciation of their merits; there are several engravings of each; from these we select, to show their quality, two views of Central Park,—one exhibiting the original condition of the ground, and the other the contrast of what it is to be.

Fig. 104.—The original condition of the ground.

On the subject of acclimation of plants there are a few observations that embrace the whole topic in a nutshell, which we shall present in these pages hereafter.

We agree with Mr. Sargent when he says: "Take it all in all, we consider the Mahonia, sometimes called Berberis Mahonia, the most valuable of all shrubs, deciduous or evergreen," and we add that the Mahonia Japonica has proved this winter to be hardy, affording a long-sought desideratum among us, a broad-leaved evergreen shrub.

STRICTURES ON ERRORS AND WANT OF METHOD PREVALENT IN POMOLOGICAL WRITINGS.

I TAKE the liberty to offer through the medium of the *Horticulturist*, a few words of criticism upon the want of unity of language and idea, and upon what I conceive to be the misemployment of terms on the part of pomological writers, as shown by them, especially in their descriptions, *pro forma*, of the distinguishing characteristics of fruits. In venturing upon those strictures I am encouraged by the hope that they may lead to the employment in those descriptions, as far as may be practicable, of a universal language; that it may not be considered a matter of indifference with writers to preserve in them *an identity of idea*, with themselves, at least, if not with others; and that terms evidently improper may give place to such as are evidently correct.

In referring to the works of the popular pomologists of the day, it will be seen that, both in idea and language, they differ alike with each other and with themselves. Thus, in the late enlarged edition of Downing's work, under the supervision of his brother, Charles Downing, the *dominant* idea of the editor is, that the *saccharine*, or *acid*, or *vinous* characteristic of a fruit *constitutes its flavor*; while in the "Fruit Culturist" of Thomas, by the word flavor is meant (generally) the property communicated to a fruit by the presence of an *aromatic*. Each of these writers, however, occasionally trangresses his own idea and adopts that of the other. The following and similar expressions employed in descriptions introduced into the former work occur so frequently as to show that my understanding of its editor's idea is correct.

"Sugar and acid both abound, but so nearly balanced that without prevalence of either, an excellent rich flavor results."

—— "with a rich vinous flavor."

—— "with a sweet and rich flavor."

—— "with a very rich brisk sugary flavor."

—— "with a sugary, vinous flavor," &c., &c.

But in the quotations which follow, he disregards his governing rule, and shows that the tangible or solid properties of a fruit instead of constituting the flavor, are dependent for it upon the presence of an aromatic. Thus—

"Flesh very saccharine and rich, with a slightly musky flavor."

—— "a pleasant juicy fruit, with a musky flavor."

—— "buttery, juicy, melting, with a rich aromatic perfumed flavor."

—— "exceedingly sugary and rich, with a highly perfumed aromatic flavor."

—— "very sugary, with a decided flavor of almonds."

Here, then, we have two opposite ideas of what flavor is, both of which cannot be correct;—one *material*, as "sugary," "vinous," "acid;" the other *essential*, as "musky," "aromatic," "perfumed."

In the first examples given, it is the flavor and not the flesh which is "sugary;" in the others, it is the flesh and not the flavor. As this word *flavor* is defined to be "the *rarified essence* of bodies which affect the organ of taste,"—something independent of the substance to which it is added,—the latter examples are evidently correct, while the former are not. Thus

we have in confectionery the popular article of lemon drops. Here, neither the sugar nor the acid, which communicate the sensations of sweet and sour, but the essential extract of lemon, constitutes the flavor. A substance may have a sweet or sour *taste*, but a sweet or sour flavor is a perversion of language. As well might we say of the style of a building, it is a wooden or brick style, because wood or brick predominates in the materials of which it is composed.

But what is exceptional with Mr. Downing seems rather to be the rule with Mr. Thomas, of which the following quotations are believed to afford a fair sample.

"Flesh melting, juicy, rich, sweet, perfumed, with a first rate flavor."

—— "buttery and melting, with a fine rich aromatic flavor."

—— "juicy, melting, sweet, with a very high perfumed flavor."

—— "melting, juicy, sub-acid, with a good second rate flavor."

It will be seen that what is here set down as sweet, and sub-acid, is considered to be distinct from what is characterized as flavor, and that they are not used as terms to qualify it. He sometimes repudiates his rule, however, as instances of which transgression I simply quote the following:

"Flesh very juicy, melting, buttery, with a rich sub-acid, or vinous flavor."

—— "with a very rich, sweet, and excellent flavor."

Such examples with him, however, are rare. He evidently knows the right, but yet (occasionally) the wrong pursues.

With a consciousness, I suspect, of this want of uniformity of description in others, and with an apparent purpose to avoid it, the Boston notion seems to be to divide the internal characteristics into two heads, viz.: flesh and flavor,—Mr. Hovey's formula quite uniformly running in this wise:—"Flesh white, fine, melting, and very juicy; flavor rich, sugary, vinous, and perfumed." So far as this form is marked by order and system, it is worthy of all acceptation; but as the idea of what constitutes flavor seems to be a compound of those entertained severally by Mr. Downing and Mr. Thomas, it can claim no farther advantage over theirs, except in being a consistent mingling of truth and error, forced upon him of necessity in order to maintain his separate heads.

Mr. Elliott, of the *Fruit Growers' Guide*, while equally consistent, and not less systematic, is more comprehensive and concise, embracing under one term all the properties of a fruit, thus: "flesh white, melting, juicy, rich, perfumed." He exhibits in his work a pains-taking carefulness and method, and seems not to have gathered up and published descriptions as dissimilar as their origins are various, without having duly digested his materials, and assimilated them to a a definite idea of his own. He cautiously avoids the confusion of the others, and evidently rejects, as absurd, the idea that a sweet or an acid is a flavor. But while he is careful to shun this error, he falls into that other, common to all pomological writers whose descriptions I have met with,—the obnoxious and intolerable perversion of the words *perfume* and *perfumed*, as applied to things that we eat.

In all definitions of *perfume* it is represented as affecting only the organ of smell; "volatile particles emitted from sweet-smelling substances;" "a sweet scent;" "a wide-spreading smell." Yet pomological writers with one accord seem to take a strange delight in debauching the integrity of its signification by using it as descriptive of an effect pro-

duced upon the *palate*, and making it in this connection interchangeable with aromatic, a term characterizing substances submitted to both senses, smell and taste. To describe the aroma, or *aromatic flavor* of a fruit as a perfumed,—that is to say its flesh is perfumed,—as though it were made to smell of and not to eat, falls but little short of being not absurd, merely, but ridiculously so.

While these writers, with one exception, err in their idea of what constitutes flavor,—Mr. Downing very generally, Mr. Thomas occasionally, and Mr. Hovey always,—and while *all* of them, more or less frequently, agree in calling that a perfume which is subjected only to the judgment of the palate, they also afford examples, more or less rarely, in which the proper mode of description and just employment of terms are recognized. I do not therefore anticipate from them objections to a general adoption of those words and forms which thus have the sanction of their authority; but I rely, on the contrary, upon their cordial coöperation in the summary rejection of those careless methods which tend directly to confusion and error, and in the establishment, in their stead, of system, order, and uniformity, whereby such exactness in the use of language shall become so general among pomologists that words in truth represent things, and misconception of their import be rendered impossible.

The possibility of erroneous information being conveyed by the want of a common understanding of what constitutes flavor, may be easily conceived. Mr. Downing, for instance, with his idea that where "sugar and acid both abound" in due proportion, "an excellent rich flavor results," may say of a fruit rivalling the Seckel in its exquisite aroma, that "*it has 'not a high flavor.*" Mr. Thomas, on the other hand, with a true appreciation of the term, may say of the same fruit, "*we know 'of no pear that has a more delicious flavor,*" (i. e., aromatic, or musky, like the Seckel); but, forgetful for the moment that Mr. Downing's idea differs from his own, he may add in perfect sincerity the disparaging words, "Charles Downing says it has not a high flavor," (i. e., is not exceedingly sweet, sugary); "hence we infer that it is variable, and if so, its value must be greatly lessened by this characteristic." This example, indeed, is not imaginary; the language is quoted from the descriptions of the two writers of the pear Des Nonnes. A fruit of unsurpassed excellence, which an observation of seven successive years, by the writer, has shown to be remarkably constant, never within that period having proved to be "variable," is thus qualified into virtual condemnation because of the absence of a uniform understanding of the significance of the one word, flavor, in the minds of the writers. Is not one instance of this kind argument enough in favor of the inauguration of a reform? And does not the great and constantly increasing interest in pomology demand it?

It will be observed from what has been written, that the formula of Mr. Elliott is considered the least objectionable. Indeed, by substituting *aromatic* for *perfumed*, and *aroma* for *perfume*, whenever those words occur, it would be a model of simple, uniform, condensed description, enumerating with rigid brevity and scientific exactness, all the characteristics which the specimen under examination may possess, and ignoring utterly the slatternly manner, the tautological and nonsensical forms and expressions which disfigure the descriptions of other writers in books and magazines. Where the flavor will admit of a specific term to characterize it, as berga-

mot, musky, (or Seckel), lemon, pineapple, almond, let it by all means be employed. But where the qualities of the fruit are merely luscious, grateful, refreshing, of a high relish, from an abundance of sugary or acidulous juice, *flavor* has no part in them, and should be resolutely excluded from the description, how much soever the temptation may be to indulge in its employment.

New editions of the popular works on pomology will be constantly required to supply the demand themselves have created; and publications altogether new are yet to come. Whether their authors may agree with the writer or not, in the opinions here expressed, let us hope, at least, that in their future editions and forthcoming works, some standard of description may be adopted as their own, and adhered to; and that the rag-bag accumulations, tumbled together from all sorts of sources, undigested and incongruous, which disfigure in a greater or less degree all the pomological publications of the day, may be steadfastly and utterly abjured.

J. C. H.

Syracuse, January, 1859.

GRAPE CULTURE FOR WINE.

BY JOHN H. HEYSER, HAGERSTOWN, PENN.

"Hilkia, the priest, found a book of the law of the Lord, given by Moses."

Having read part of a very interesting address by David Thomas in the February number of the *Horticulturist*, in which he confesses himself puzzled about some things concerning the culture of grapes, and not remembering to have seen certain ideas advanced by any one, I have been persuaded to make the attempt to give my mite. There are some who believe in a constant progressive development, others in cycles, and really it would seem that this last idea will be sustained in reference to grape culture in this country. We have gentlemen of wealth and intelligence who have spent many years and much money trying to make foreign grapes grow here, and have books teaching us how to stump in our vines. If we look at our vineyards at a little distance, they remind us of a field of running beans. Some time last autumn Mr. Miller, of Calmdale, (who I believe does his own thinking,) came to the conclusion that all this was wrong, and went at correcting it. Instead of giving my ideas on the subject, I wish to introduce (if not too long) an anonymous article on grape culture, which I found in an old book printed at Georgetown, D. C., in 1818, called the American Gardener:—except that I would wish to say, that the reason why I think we have gone astray is, that our vineyards and gardens have been mostly managed by foreigners from the north of Europe, where the climate is damp, and sun is scarce, and where it is necessary to adopt means suitable to those conditions, but entirely wrong for this country, where we have tropical suns that parboil the fruit.

"Before this little volume is sent into the world, the Editor thinks it a duty to say a few words upon the very important subject of Vineyard planting, than which there cannot be imagined a national object of greater magnitude, or of consequences more desirable. In a commercial view we have only to advert to the vast quantity of wine imported from foreign

countries (to the amount of three millions of dollars a year,) to be convinced of the advantages that must result from adoption, upon system, of an extensive cultivation of the grape. The question is, how can this object be attained? True, it has been inferred that the soil and climate of our country must be suitable to the vine, because the whole face of the country is thickly bespread with that plant in a wild state; and because some persons of curiosity and enterprise have succeeded in cultivating them—nay, a few in making wine. But why has not the cultivation been more successful? Why not more universal? A few public-spirited gentlemen have taken considerable pains to introduce, from the best wine countries in Europe, various kinds of grapes of the best qualities in that quarter of the world; why has no greater progress then been made in this so very desirable a branch of agriculture? Why have we no wine brought to market? To all this our answer is, '*For that very reason.*'

"Meantime, we exhort every man who has a farm to appropriate a certain portion of it to the making of experiments, and to the propagation of the native plants. The difference between the European culture of the grape, practiced by foreigners, and that which succeeds in the United States, is this: In the latter the vines must be trained as *far from the ground as they can be conveniently elevated.* The vines must not be cut off beyond the bunches of fruit, and the grapes must hang as much as possible in the shade of their own leaves: whereas foreigners generally train their vines near the ground, that they may have the advantage of the warmth of the earth, as well as of the sun. They also take off the leaves; the consequence of which in this country is, that the sun scorches the skin of the grapes, after which they will not ripen. . . . . In cultivating our native grape, rub off *all the buds with* your finger, except such as you wish to bear grapes the next year. Those buds that are left must be trained so as to grow as vigorous as possible, i. e., by training them *nearly horizontally, with a small rise.* Those branches that have the grapes on must not be cut or pinched off beyond the bunches of grapes, but must be permitted to run at large." . . . . .

This was written in 1818. How much have we learned since? Nothing! Mr. Miller, whilst on a visit here last Autumn, saw vines that were not stumped in, that have borne for four years piles of grapes, and that had good wood for another pile.

"And it came to pass when the king had heard the words of the law, that he rent his clothes."

REMARKS ON THE DAHLIA, HISTORICAL AND CULTURAL.

BY A YOUNG FLORIST.

The Dahlia is a native of Mexico, and was discovered by Humboldt, growing in sandy soils, between four and five thousand feet above the level of the sea. It was first introduced into Europe from that country, and one variety flowered in 1789, under the care of that eminent botanist Cavanilles, Professor and Director of the Botanic Garden at Madrid, where he soon after flowered two others, figured and described in his *Scenes.* The first plant was received in England by the Marchioness of Bute, which appears to have been soon lost; and this species of Dahlia was unknown in Eng-

land until it was reïntroduced in 1804, by Lady Holland, who brought seeds of it in that year from Madrid. The name of Dahlia was given to this flower by Cavanilles, of Madrid, in 1789, in honor of Professor Dahl, a Swedish botanist. This name was afterwards changed by Wildenow to Georgina, in honor of a German botanist, who resided many years in St. Petersburg, in consequence of the genus *dalea* having been previously established by Thunberg. As, however, the name is neither spelled nor pronounced the same as Dahlia, and as the name of Dahlia was given long before that of Georgina, the plant is now restored to its original appellation.

During the first few years of their introduction into Europe, few varieties were originated, and those of very inferior merit. We find this circumstance to have been noticed in the most scientifically-managed gardens of France and Germany, as well as in the Madrid garden, where they were first introduced. De Candolle, in his memoir, published in 1810,—that is, eight years after their introduction into the Jardin des Plantes,—describes only eight varieties, and from what can be deduced from that paper, it appears that he had not, up to that period, produced a double flower, although he evidently expected such a result. In the Berlin garden, long noted for the success of its cultivation, and into which the Dahlia had been received as early as 1800, no new varieties were obtained from seeds till six years afterwards.

The Dahlia is readily increased by seeds, cuttings, dividing the roots, and grafting: by seeds, only with the view of obtaining new and better varieties; by cuttings, to perpetuate good varieties already obtained in the greatest numbers, and also to have small roots or tubers convenient for exportation; by dividing the root to increase known sorts to a limited extent; and by grafting, to obtain plants with large roots more rapidly than the other methods. This last method is but seldom adopted. When seeds are procured, they should be carefully dried and preserved during winter, and sown in March or April in seed-pans or pots, in a hotbed or other temperature of about fifty-five or sixty-five degrees. If the plants come up quickly, it will be well to transplant them into single pots of the small sixty size, one plant in each pot, and keep them in a temperature of from forty-eight to fifty-five degrees, till the first week in May, when they may be planted out in a border of rich, deep, mellow, good soil. They will require particular attention against late spring frosts till towards the 20th of this month; afterwards their only culture is to stake them as they grow up, and select the most favorable-looking flowers as they appear, throwing away those that are single, or of inferior merit. The best and by far the most general mode of propagating Dahlias is by cuttings, and in order to obtain these, the old roots are put into a state of growth early in the season, and the young shoots which spring from them, and which are produced in abundance, are employed as cuttings. Some extensive growers excite their Dahlia roots as early as December or January, and continue taking cuttings off them as long as they continue to afford them, or until a sufficient number of plants of the desired kind is obtained. For ordinary purposes, the beginning of March is a good time to put the rest into a situation to grow, which is usually done, when on a small scale, by putting them in light mould in larger pots, placing them in a hotbed, frame, vinery, plant-stove, or in any other convenient place where there is a temperature

of about sixty or sixty-five degrees, or even more. Upon a larger scale, the old roots are placed together, without potting, upon a hotbed, shaking in a little light, sandy mould, or rotten tanner's-bark, amongst them. In either case the young shoots soon begin to appear, and should then, as well as before, be occasionally sprinkled with water. When the shoots are from two to three inches in length, they may be cut off close to the old tuber, but not so as to injure its top or crown, because many more shoots will arise from it if required. The cuttings are prepared by cutting the shoot smoothly across under the first joint, and without shortening the leaves, planting it in the smallest-sized pots (thirties) into a light soil, chiefly composed of decayed leaves and sand, or, as many practice with success, in pure white sand alone. The sand should be well wetted, and the cutting inserted just as far as will enable it to stand upright, for with most other cuttings, the shallower they are planted the better. When the cuttings are so planted, they should be plunged into a brisk bottom-heat, covered with a hand-glass, and regularly shaded; whilst in this situation they should be regularly watered, but not over the leaves, and kept close shut up, unless to inspect the plant. In ten or twelve days they will have sufficiently rooted to be taken from under the glasses, and should be accustomed to the air by degrees; when they will stand without flagging or drooping their leaves, they may then be transplanted into larger pots, and into richer mould, the sand being previously shaken from them. They must now be accustomed to a lower temperature, and progressively hardened, by removing them from the propagating pit or house to other situations, unless they will stand the air and temperature of a close frame or cold pit; but in these they will require to be covered at night with mats till May or June, when they must be accustomed to stand the open air, so that they may be planted out where they are to flower by the middle of the month. Sometimes Dahlia plants are forward enough by the first of May to be planted out; but as it would be unsafe to expose them too early in the season, it would be well, if planted too early, to cover them with hand-glasses for a week or two, or in want of those with pots, which being left off during the day, and put on during the night, is the best substitute for the former. Cuttings are also taken off the plants during the growth, any time from June to September. The shoots best calculated for this sort of propagation are those small lateral branches, which in general abound upon the plants, that may be successfully struck by being planted in sand in small pots, and placed behind a wall or other shaded situation, and otherwise treated as above.

The process of multiplying by dividing the root is simple, and requires nothing beyond the careful separation of the tubers, each piece having a portion of the crown of the root attached to it, in which there are two or more eyes or buds, without which they would not grow.

The process of increasing by grafting is applicable not only to Dahlias, but to most strong-growing herbaceous plants having solid stems and large tuberous roots.

HOW TO BUILD YOUR COUNTRY HOUSES.

BY CHARLES DUGGIN, ARCHITECT, NEW YORK.

In presenting to the readers of the *Horticulturist* a series of articles on, and designs of, country houses, embellishments, etc., I do not purpose giving an elaborate treatise on rural architecture, but simply a series of designs and plans, accompanied with such description of construction as may be necessary to convey a proper idea of the materials used, and the mode adopted of building the same together. In the present number I beg to offer the design of

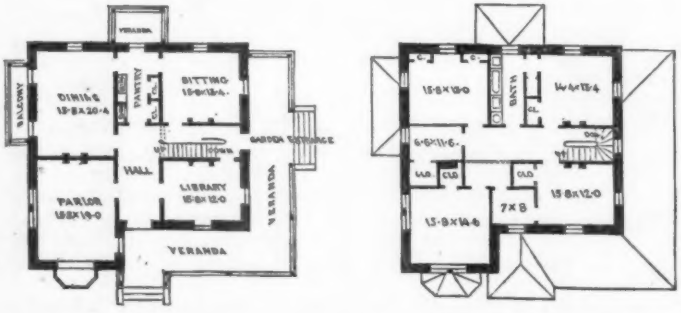
A CONCRETE HOUSE,

just completed in Essex county, New Jersey. It is situated in a beautiful and picturesque district, on the road leading from Orange to Milburn.

On reference to the plan, it will be observed that it approaches somewhat a square house. The parlor, however, is extended out sufficiently to afford a suitable termination for the veranda. The exterior is so treated as to present an entirely different appearance on each side.

The Arrangement.—Entering the house on the west front, you pass into a hall eight feet by nineteen feet. On the north side is situated the parlor and dining-room. The parlor, fifteen feet eight inches by nineteen feet six inches, with a bay window at the west end, commands a view of the high road and the western range of the Orange mountains; and on the south

side is a window leading unto the veranda. The dining-room, fifteen feet eight inches by twenty feet four inches, has, on the north side, two windows leading unto a roofed balcony. This balcony makes a pleasant sitting-place as well as an ornamental feature to the north side of the house, which would otherwise have a somewhat plain appearance. On the opposite side to these windows are two doors, the space between making a convenient place for the sideboard. The pantry adjoins the dining-room, and is fitted up with dumb-waiter, sink, supplied with hot and cold water, and ample drawers and closet room. This pantry is lighted by a window leading into a small veranda, serving as a covering to the outside steps to basement. The door from the pantry into the hall should be a sliding sash-door, glazed with figured or stained glass. By this arrangement the door will be less in the way, and in the summer season can be left open so as to get a pleasant breeze through the hall. On the south side of the house are the sitting-room and library, with a side hall between, in which the staircase is



placed, the sitting-room is fifteen feet eight inches by thirteen feet four inches, with one window on the south side, leading unto the veranda. On this south side is located the side entrance, coming convenient to the library (fifteen feet eight inches by twelve feet) which, in the present case, is purposed to be used by the owner as a room in which his business connected with his farm can be transacted. In this side hall, and under the stairs to the second story, are those leading to the basement, which is light and airy; the grade being in a slope towards the east, allows those rooms most used to be more out of the ground. The kitchen is placed beneath the dining-room, and is a large, well-lighted room; the fireplace is fitted with a range; on one side is a brick oven, and on the other a door leading to a commodious kitchen store, well provided with shelving.

At the back of the kitchen-range is a hot-air chamber, connected with a register in the dining-room. This arrangement is a very good and convenient one, and is more especially useful at those seasons of the year when it is not required to light the furnace, as the fire that is necessary in the range to prepare the meals will give sufficient heat to warm the dining-room, and it will further give the benefit of always having one warm room in the house, without the necessity of building a fire for the express purpose.

The space occupied in the first story by the pantry, is here devoted to a passage-way to the outside steps, and fitted up on each side with shelved closets. The dumb-waiter, for hoisting dishes, is also placed here, with an opening into the kitchen. The laundry or washroom is the same size as the sitting-room overhead, and is fitted up with wash-trays and closet-room. The remainder of the basement is devoted to milk-room, larder, and store-room. The coal-cellar being built under the front veranda, with a coal skute for the convenient storing of the coal.

The arrangement and sizes of the rooms on the second story can be seen by reference to the plan. The two chambers having no fireplaces are provided with iron stove-pipe rings built into the partitions and carried to the flues, so that in case of sickness, or its being necessary to have a fire in either of these rooms, a stove may be fitted up. In the bath-room is provided a water-closet, hip-bath and wash-basin, as well as the bath-tub, all arranged on one side of the room, and directly over the plumbing below. The tank being placed in the third story over this, brings all the plumbing very convenient.

The third story has four large chambers of the same size as the rooms on the first story. They are four feet high on the walls, and rise with the slope of the roof to eight feet six inches in the centre. All these rooms are well lighted and provided with closets. The space occupied by the bath-room below is devoted to a store-room, in which is placed the tank, as before stated.

The height of the basement is eight feet; the first story, eleven feet; the second story, nine feet; and the third story, as before described.

Construction and Finish.—The mode of building all the external walls of this house, and the principal partition walls of the basement, is one that I think only requires to be known to be more generally adopted. The walls are built up of concrete, which is formed and laid up in the following manner:

Having marked out the line of your walls, place up some rough boards, forming a trough, the width of which should be the proposed thickness of your walls, which may be sixteen inches in the basement, and fourteen inches for the other stories. The trough or box should be about one foot deep, so that the workmen can reach the bottom. Then take stones, varying from three inches and smaller to say six inches cube. The stones forming the foundations may be larger, but it is not advisable in the upper walls to have larger stones, as the smaller the stones the better they bind; indeed some parties recommend breaking the stones up the same as for a macadamized road, but this is not necessary or advisable. These rough stones are built up in this trough with cement, lime and sand, made up in the following proportions. Take four measures of sand and one of cement—mix these together with water that has had lime added to it sufficient to make a whitewash. The sand should be sharp coarse sand, free from earthy matter; if the sand be fine, it is necessary to add a greater proportion of cement. This mortar is then thrown into the trough and the stones laid up with it, taking care to let the stones have as good a bed as possible, and to well bind together. The mortar should be used wet, and when fresh-mixed.

The windows and openings should have stone sills, and to the window-frames secure rough boards so as to make the box a trough complete for building up the walls. When you have filled the trough leave it to get properly set, and then shift your boards higher and continue the wall. Over

the doors and windows it is advisable to have the arches formed in brick and cement, although in the present case, the concrete wall is only used; but the mason who did the work, having put up several houses of the same construction, knew better how to construct these arches in concrete than those who have not had experience in this mode of building.

The advantage of this style over the ordinary mode of building a stone wall is, its cheapness, dryness, and strength. It is less costly on account of the facility with which the work is done, there being no trouble in facing up the wall on two sides, and cutting the quoins or corner stones for the angles and openings. It is perfectly impervious to the weather, being built solid in cement, and its strength is indisputable, as can be proved by reference to houses built.

After the wall has been built up, it is necessary to cement it over on the outside so as to fill up all unevenness. Where projections are required, such as the architraves and arches to the windows, as in this design, they can be formed in cement; and to break up the plainness of the surface, it can be marked off into blocks, as shown in the illustration.

The wall being impervious to moisture enables you to dispense with inside furring and lathing, and one coat of plastering, thus making another item of reduction in cost; it being only necessary to put on the brown coat of plastering and then the hard finish.

In the house under consideration all the inside partitions above the basement are stud partitions. The rooms on the first story have moulded cornices. The general finish of the interior is of a simple character. All the woodwork throughout is of white pine—that to the first story is oiled and varnished instead of painted; this plan is not quite so cheap as painting, on account of its being necessary to be more careful in the selection of the material and in the workmanship, but it has the advantage of showing the natural grain of the wood, and as time wears on it increases in richness of appearance.

The amount of finish to the exterior is readily understood by reference to the illustration; it is therefore needless to go into details.

Cost.—The Carpenters' work to this house was contracted out for $3,550. This included the slating and finishing, and all the painting. The outside cement having three coats, the same as remainder of work. The entire cost of the Mason work was $2,700, which included the carting the stone to the building (nothing having to be paid for the stone, it being gathered from the farm), and the necessary cisterns, cesspools, and drains. The total cost therefore of the carpenter and mason work was $6,250. The house being equal to 64,500 cubic feet, brings the cost of this house to about 9½ cents per foot for every cubic foot of space it occupies. For explanation of this mode of calculating the cost of a house, see page 504 of last volume. In addition to the above outlay has to be added the cost of the furnace, mantles, grates and plumbing.

DE TONGRES PEAR.*

This fine fruit originated in or about the very old city of Tongres, in Belgium, and was first described in the Album de Pomologie, Vol. 3, 1849–50.

Fruit large, pyriform, or obovate-elongated, depressed or curved towards the stem. Color dull green, with large russety waves or spots, turning to a gold or brown yellow towards maturity; with a dull red cheek, and an uneven and rough appearance. Flesh white, melting, with sufficient sugar and aroma and a vinous sub-acid taste; best. It is one of the few foreign pears which have retained their original qualities in this country. Reports from Kentucky state it to be as "ranking among our best." At Charles Downing, Esq.'s, where it fruited in 1858, it proved to be a very fine fruit also. So that there can be little doubt as to its adaptation to at least our Middle States.

Tree vigorous enough, of a pyramidal form; bark brown-reddish; buds conical, prominent, sharp, with a stripe extending from the base of one bud to the next lower bud.

It has been already sent under false names; the Vicomte de Spaelberg was received for it, and is somewhat extensively diffused in the place of the genuine variety; but the longitudinal, prominent stripe extending from one bud to the other, is a peculiar character by which this variety can easily be distinguished from spurious varieties. The fruit ripens in Belgium about the middle of October, but here it is about three weeks earlier, and more than a month earlier farther South.

L. E. Berckmans.

THE PINNEO AND HEBRON PEARS.

BY GURDON W. RUSSEL, M.D., HARTFORD, CONN.

I send you the outlines, with descriptions, of two varieties of valuable pears, the *Hebron* and the *Pinneo*, the latter unquestionably a native of Connecticut, and the former also, I think.

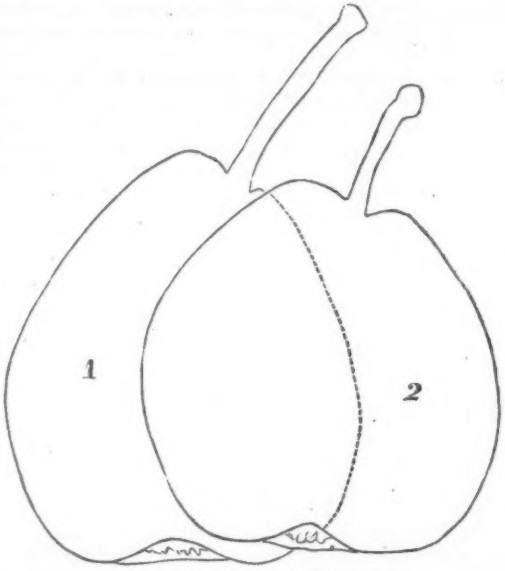
Hebron: This originated, as near as can now be ascertained, in the town of Hebron, in this State; when, I cannot learn; but it was introduced into this neighborhood many years since. Mr. Paphro Steel informs me that he obtained grafts of it from Mr. Normand Knox, about 1826, and Mr. Knox told him that he himself went to Hebron for them many years before. Mr. Samuel Kellogg, of East Hartford, tells me that he went to Hebron for grafts as many as forty years since, and that there is a tradition in the family that the pear was brought from Raynham, Mass., more than a hundred years since, by Rev. Elijah Lathrop, his grandfather. I cannot learn from Hebron that this was the case, and do not fully credit it, but intend to investigate further. It is thought to be a native, by our cultivators here, and it is stated in the *Homestead*, August 26, 1858, that the original tree stands, or did stand, a short time since, in the town of Hebron. From that paper I copy the following description:

"Fruit obovate, depressed, pyriform; skin thin, generally smooth, yellow (cinnamon) russet, thickly covered with obscure brown dots, especially

* See Frontispiece.

upon those parts least russeted ; stem three-fourths of an inch to an inch and a half long (curved), inserted somewhat obliquely in a moderate depression ; calyx nearly closed in a very shallow basin ; flesh (coarse) melting, juicy, sweet, and slightly musky, aromatic ; ripe July 20th to August 10th." It is a thrifty grower, a great bearer, and of " very good quality ;" like all summer pears it is necessary that it should be picked before ripe.

Pinneo : This is an old Connecticut variety, ripening about the first week in September, and although long known in the eastern part of the State, seems not to have been long recognized out of it. I became acquainted with it about sixteeen years since, and the first printed account, as far as known, was in the *Albany Cultivator* for 1845, by John S. Yeomans, of Columbia, Conn. Mr. Yeomans in a recent communication to the *Homestead*, states that the original tree is still living.



1. PINNEO. 2. HEBRON.

A friend writes me from Gilead, Sept. 17, 1857 : "Last evening I called on Deacon Hutchinson and obtained definite and reliable information (as I have no doubt) of the origin of the Pinneo pear. More than fifty years ago, Deacon H. said, he went to Columbia on purpose to get of Esquire Pinneo some pear sprouts for himself, etc.

At that time Esquire Pinneo told the Deacon that he was once mowing bushes on the out lot, and found a small pear tree, which he spared. In the proper time for setting out trees, he dug up the little bush, and set it out near his dwelling, thinking to have it grafted some day ; but he finally concluded to let it grow as it was, and see what fruit, if any, it would bear.

Well, it bore very good fruit, and he did not wished it changed. The sprouts also came up, and were in turn set out, and bore the same kind of pears. I do not know if Esquire Pinneo gave them a name, but as the sprouts were widely scattered, the fruit came by common assent to be called the Pinneo pears."

This is the name by which the pear is generally known in the eastern part of the State, where it is considerably disseminated.

I think sometimes it may have been called Summer Virgalieu. Once it has been sent to me under the name of Graves.

Fruit of medium size, obovate, skin yellow, with numerous russet dots, and patches of russet about the stem, which is long, curved, rather stout, and obliquely inserted in a small depression; calyx open in a shallow basin; flesh melting, juicy, and sweet, with slight astringency; seeds long, black, many abortive; quality "very good."

This is the pear which has been sent out within a few years by Messrs. Hovey, under the name of the Boston, which has been exhibited by them at the Exhibitions of the Massachusetts Horticultural Society as "a new native pear," and which has received premiums from the Society repeatedly. Trees were offered for sale, with extensive puffing, at five dollars each, and the general impression was, perhaps without any distinct assertion of their's, that it was a fruit of their own raising; it has been published as a fruit raised by Mr. Hovey, and no efforts were made to contradict it, nor am I aware that the source from whence it originated was ever named in print, or verbally; the origin seems studiously to have been concealed, and its introducer into a new locality appeared willing to receive the credit of its origin. Perhaps, commercially, he expected to turn a penny by it.

Now, Mr. Editor, I put it to you, and to every horticulturist, if this is not decidedly rich. Only think! here is a Connecticut fruit, cultivated for more than half a century, so long that through an extensive region the name is well established, which turns up in a distant locality, under a new name, is generally understood to be a new fruit, and is advertised with all the show of new fruits, large type, large price, and great excellence.

The identity was not discovered until a little more than a year ago, when specimens grown in Boston were compared with some grown in this State; there had been no previous suspicion of their identity, and as Mr. Hovey had not published a description, no one had been able to institute a comparison; for the trees which he had sent out had not yet come into bearing. The operation was a bold one, and probably a profitable one; if it is to be defended as a "fair business transaction" it is not to be defended upon its morality.

Nor can it receive the sanction of any nurseryman who entertains a love and respect for his business; of any amateur who expects truthfulness in his dealings with nurserymen; or of any society which expects its opinions and decisions to be respected. This matter, and others of a kindred character, may have troubled the Massachusetts Horticultural Society often enough before now, but the best endowed society in the Union cannot expect to maintain a character for justice and honesty, when such transactions as the above are allowed to pass without rebuke. The unfairness of the thing is so apparent that much more need not be said; this doubtless was the view taken of it by the American Pomological Society at its late session in New York, when, after a lengthy and excited debate, it, by a

decisive vote declared that this pear of which we have been writing should be called *Pinneo*, refusing even to tolerate *Boston* as a synonym; that was a pretty effectual rebuke, which somebody must have felt. I do not think that horticulturists will be satisfied with the attempted apology, that this is only one of the "tricks of trade;" I have no doubt but that the fraternity would indignantly deny it, as being contrary to those principles of common honesty which should govern all men in their transactions. Horticulture is now taking with them, as it is now taking with the people, an important and exalted position, and it becomes their horticultural societies, and private gentlemen also, to see that it receives nothing of detriment at their hands.

And now, Mr. Editor, I must beg your pardon, and the pardon of your readers also, for having obtruded upon them what may seem so much of a personal matter. But I have no feeling about it, except that of placing it in its true light; and as I first exposed the imposition upon the public in the *Homestead* of last year, have felt bound to see that a proper defence should be made against some statements and insinuations in the "magazine of horticulture" for November last. Our "Connecticut cultivators" do not pretend to know anything more than others in the same field, but they are smart enough to detect some of the impositions which are allowed to circulate, and having detected, to expose them.

If there is anything more ridiculous in this whole transaction than another, it is, that the Pinneo should be pronounced identical with the Hebron; they are very different as every one knows who is acquainted with them, and as any one will see who will read the descriptions—different in form, color, flavor, and time of ripening; and yet one is placed as the synonym of the other, by Mr. Hovey, and he refers to his own pages for evidence of this identity. They are not the same, have never been thought to be the same by any one here, or by any one elsewhere, who was familiar with both the fruits.

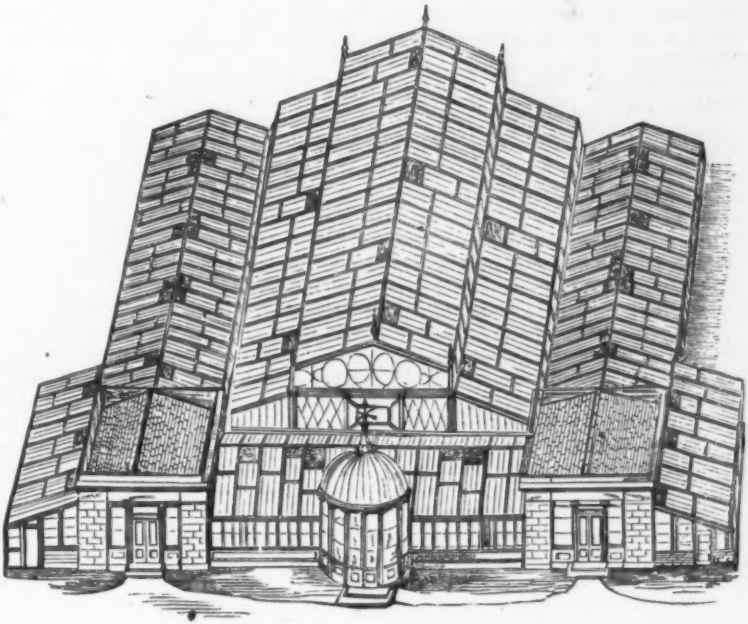
In the reports of the Proceedings of the Pomological Convention, I am made to say that the Pinneo ripens in December; this is incorrect; it ripens during the first part of September.

THE NEW WINTER GARDEN OF MESSRS. WEEKS & CO., CHELSEA.

Messrs. Weeks, the eminent horticultural architects, of King's Road, Chelsea, having recently completed the erection of a house, termed a "Winter Garden," we were invited to inspect the same, and feel bound to add our testimony to its perfect adaptability to the purpose intended, as well as to the good taste displayed in its plan and construction. The erection is entered through a conservatory from the King's Road, and covers a space of about twenty-five yards by thirty. On one side is a large stove, and on the other a greenhouse, with seed and waiting-rooms in front. The Winter Garden is a very ornamental building, and the interior space is laid out in four raised beds of considerable size, with a circular one in the centre; the latter is now (August 20th) occupied by *Japan Lilies*, with a fine specimen of *Araucaria excelsa* in the middle, and the four corner beds

are filled with *Camellias*, *Orange trees*, *Azaleas*, *Fuchsias*, *Humea elegans*, *Agapanthas*, *scarlet and variegated Geraniums*, etc. The beds are each raised a foot or more above the level of the floor, the sides banked up with turf, and edged with *Lycopodium*. The spaces between the beds afford plenty of room for walking about, and the construction of the building is such as to give the whole a light, and remarkably cheerful appearance.

The Winter Garden, together with all the house in this nursery, is



heated by one boiler, supplying about 7000 feet of pipe, and capable of maintaining any desired amount of heat at a very low cost.

The inspection of Messrs. Weeks' Winter Garden will afford much gratification to every one interested in the progress of horticulture; as a proof we have but to point out that it has already been visited by a great number of practical gardeners, the principal nurserymen, and many of the nobility and gentry.—*London Florist.*

ROSES.

THE admirers of the rose, and who is not? will now be looking about for additions to their stocks, or replacing those whose lives from any cause have been lost. From time to time lists of the newer kinds have appeared in these pages, and as they become more plenty they will be introduced. To-day, we confine ourselves to the practical, to a list of such as all can procure; and we call to our aid Mr. Buist's new catalogue, as containing an experienced person's views of the best kinds accessible to all. We take it from his "Almanac and Gardener's Manual, 1859." He introduces it thus:

"The rose forms the chief source of attraction;—with the different classes, viz.: *Hybrid Perpetual*, or *Remontant*, *Hybrid China*, *Provence*, *Damask*, *Moss*, *Perpetual Moss*, *Prairie*, &c., all of which are hardy; and the *Tea*, *Bourbon*, *Noisette*, *Bengal*, and other classes, many of which withstand our winters—an endless variety may be commanded. A few beds of these on the lawn produce a profusion of flowers daily, during the season from May to November;—June and September are however the great rose months. In June, we have the Hybrid China, Multiflora, or June roses; the Hybrid Perpetual Mosses, and Provence, as well as the tender Teas, Bengals, Noisettes, and climbing varieties, forming an array of distinct sorts sufficient to satisfy the most dissimilar tastes. All these may be secured by a little foresight and and attention; full directions are given in our 'Rose Manual,' last edition, and a select list is here appended.

SELECT LIST OF ROSES.

SIX HYBRID PERPETUAL OR REMONTANT.

1. *La Reine*,
2. *Jules Margottin*,
3. *Giant of the Battle*,
4. *Wm. Griffith*,
5. *Enfant de Mt. Carmel*,
6. *Baron Prevost*.

FOUR TEA, (*Indica Odorata.*)

1. *Devoniensis*,
2. *Gloire de Dijon*,
3. *Saffrano*,
4. *Triomphe de Luxembourg*.

FOUR BOURBONS.

1. *Hermosa*,
2. *Sir Joseph Paxton*,
3. *Duchesse de Thuringe*,
4. *Doctor Leprestre*.

FOUR NOISEITE.

1. *Fellenberg*.
2. *Caroline Marniesse*,
3. *Isabella Gray*,
4. *Cromatella*.

FOUR BENGAL OR DAILY.

1. *Pink Daily*,
2. *Agrippina*,
3. *Cels*,
4. *Lady Warrender*.

FOUR HYBRID CHINA.

1. *Coupe d'Hebe*,
2. *Fulgens*,
3. *Paul Ricaut*,
4. *Madame Plantier*.

FOUR MOSS.

1. *Comtesse de Murinais,*
2. *Princess Adelaide,*
3. *Luxembourg,*
4. *Perpetual Moss Salet.*

TWO PRAIRIE.

1. *Queen of Prairies,*
2. *Baltimore Belle.*

MISCELLANEOUS.

1. *Persian Yellow,*
2. *White Microphylla,*
3. *Fortune's Yellow,*
4. *Madame Hardy,*
5. *Provence Cabbage.*

"The above comprises a complete assortment of the various classes, three dozen plants in all, which would cost about twelve dollars."

ENGLISH STRAWBERRIES.

BY JOHN SAUL, WASHINGTON, D. C.

In the January number of the *Horticulturist* is an article headed, English Strawberries versus Natives, by D. M. Richard. Would not good culture versus bad, have been more appropriate? for on the outset Mr. R. remarks, "To make any fruit profitable for market there are several things requisite,—fine flavor, good size, and appearance, hardiness, regular and good crops, with the *least labor*." I will take these requisites in the order in which they begin: first on our list is fine flavor. Is it really necessary for me to tell any cultivator of Strawberries that Alice Maud, Victoria, Kitley's Goliath, British Queen, &c., are superior to a Scarlet? I always understood from my own experience, as well as the writings of the best Pomologists, that the first and principal characteristics of the Pine Strawberry (to which class all these belong) was its exquisite flavor. At the June Exhibition of the Washington Horticultural Society, the two past seasons, the Strawberries which received prizes for high flavor were these veritable foreign sorts. Why did not Mr. R. appear in competition with his little Scarlets? The public like facts, and the fruit which bears away the premium in a spirited competition, will be by discerning horticulturists accepted as best. If Mr. R. is really serious when he says "Alice Maud" is deficient in flavor, I would reply, "there is no accounting for taste," and this point is not worth arguing farther. The next requisite, size, appears to me about as tenable as the first. Mr. Doubleday, of Epping, near London, grew a Pine Strawberry 8 inches in circumference. British Queens are frequently shown there 6 inches in circumference. Mr. Lambert, of Alexandria, Va., showed, at the Washington Horticultural Society, in 1857, a dish of Magnum Bonum (a genuine Pine), many of which could not have been much less than 6 inches in circumference; they might with much credit have been shown in London or the Crystal Palace; I regret much I had not an opportunity of measuring some of these magnificent fruit. Mr. John Slater, of Alexandria, grew a fruit of Victoria the past season which weighed over an ounce. A querist in the *Horticulturist* not long since wished to know, if the figures given in the plate of this fruit were exaggerated. You well know, Mr. Editor, they were under size on the day I gathered the fruit of Victoria, with Mr. Cammack; he had at the time gathered and fit to gather, some hundreds of quarts

of Victoria, the greater portion equally fine with the fruit sent;—what a sight this would be for Mr. R. to behold, and what a figure his little Scarlets would cut near them! Next on the list we find appearance; if large size and a bright color do not constitute good appearance, my knowledge of this quality is at fault, and we will leave it for the next,—hardiness.

The most delicate Strawberry I have ever seen, when grown in a properly drained soil and mulched in the fall, will pass through the winter safely; the burning sun of summer I find far more injurious to all Strawberries, than cold,—that there are many varieties of foreign Strawberries which cannot withstand our burning sun I am fully sensible of; there are again others, which will stand our fiercest sun, as well or better than any native sort; to this latter class belong Victoria, Comte Flanders, Triomphe de Gand, Vicomtesse Hericart de Thury, &c., whilst their power of resisting cold is equally great. I cultivate all the leading Native and Foreign sorts, give no protection during winter,—and if Mr. R. will favor me with a visit at the opening of spring, he can judge for himself whether the varieties I have named, and many others, will present as good an appearance as the natives; by repeating his visits in the dog days, he can judge of the effects of the sun's rays upon them. That Messrs. Cammack and Slater will be equally courteous I make no doubt; the place of the latter is not a great distance from Mr. Richard's. Next comes "regular and good crops;" these I can assure the reader will follow good culture; it has done so with the gentlemen named by me, and the extent to which they cultivate them is the best proof of this; commercial gardeners will assuredly grow the most profitable.

We have now arrived at the last requisite, "*least labor.*" And here I must admit Mr. Richard's Scarlets have the advantage; they are admirably suited for the "*least-labor*" system, which means grass and strawberries together, the strawberry patch to be mown soon after the fruit is gathered, and in place of a nice mulching of rotten manure in the fall, the grass has grown and become matted through the plants, "to prevent their freezing out during winter." In spring they are cleaned expeditiously by burning the patch over, and the plants are ready to bear again. Such is the least-labor system, and under which Foreign Strawberries pertinaciously refuse to grow, or if they do, drag out a miserable existence, and realize in the market twenty cents per quart, at which price Mr. R. informs us he has seen "Alice Maud" sell. Did he ever know Mr. Slater or Cammack to sell at that price? and is he cognizant of the fact, that the former of these gentlemen frequently obtains a dollar per quart on their first appearance in market. How these crops are produced, I will make an extract from my article alluded to by Mr. R., or the question will be naturally asked: How came these varieties to succeed to such perfection with the gardeners here named, whilst they have so signally failed in the hands of others in the vicinity? I answer, good culture. These men know the value of deep trenching, high manuring, and good after-care, such as keeping them perfectly clean from grass and weeds through the summer, and the ground loose and broken. Persons not disposed to give such culture, but to depend upon the plough, and in case of a failure of a strawberry crop, to take off a crop of hay or clover, had better by all means stick to their scarlets; they are far more satisfactory. By scarlets I mean nearly all our native varieties, as few—very few, possess the least trace of a pine, not excepting the best of American strawber-

ries, Hovey's Seedling. This must be apparent to any person conversant with the original types of our now cultivated strawberries.

"I am fully aware that many English varieties are not suited to our climate; others are disposed to burn. The nearest to perfection that a fruit reaches, the greater care and higher culture it requires: it is so with all garden vegetables, with florist's flowers and plants. Neglect the Dahlia, Rose, Holyhock, or Pansy; how soon do the flowers of the three first become single and poor, and the last diminutive in size. Our finest cattle demand the greatest care. Apples are attacked by borers; pears are subject to blight; peaches, gum; plums, apricots and nectarines are injured by curculios; grapes, mildew; corn, fires; wheat has smut; and our potatoes rot; yet persons are found to cultivate one and all of them."

To the above I would add, not only should the ground be trenched and highly manured, but the soil should be an adhesive loam approaching to clay; on thin, light, or sandy soils I have never known them to succeed. Mr. John Slater assured me the finest Alice Mauds he had ever grown were produced on a hard gravel bank, graded down to the subsoil, the latter having been highly manured and broken. Dr. J. H. Bayne's failure was known to me at the time I wrote my letter. A Long Island nurseryman noticed it in his catalogue, as a proof of the failure of foreign varieties here; yet, whilst this failure was heralded abroad, Messrs. Slater, Cammack, Howlett, etc., were producing the most surprising crops. It reminds me of a fact, probably known to most of my readers. A scientific man, Dr. Lardner, delivered a lecture in Bristol, England, on the impossibility of navigating the Atlantic by steam, yet at the very same time, in that city, some simple-minded merchants were engaged in building the Great Western steamship, which, in spite of the predictions of that philosopher, safely opened a pathway for steam over that stormy ocean. And in our more humble sphere, where Dr. Bayne has so signally failed, hard-fisted market gardeners have succeeded. Permit me, however, to add my testimony to Dr. B.'s skill as an orchardist and market gardener, and to the much good his influence has exercised in the region where he resides. If Dr. Bayne's soil is light or sandy, or should he not have given them the system of culture which I have described, failure must have been the inevitable consequence; but if, on the contrary, his soil was suitable—well trenched, manured, and cultivated, and failure was the result, the cause of this failure is worthy of investigation.

Mr. Richard says, "There is no doubt, with equal cultivation, our leading American strawberries will throw every foreign variety far in the back-ground as a profitable market fruit; such has been the experience of Dr. Bayne, and if I am not mistaken, such is the opinion of Mr. Cammack, and nearly every strawberry grower in the neighborhood of Washington city." On the least-labor system, the foreigners will undoubtedly be thrown in the back-ground, but on the good-culture system the result will be somewhat different. Who are "nearly every strawberry grower in the neighborhood of Washington city?" Mr. R. will probably have heard of the two or three tailors, who styled themselves, "We, the tailors of the city of London," and its application he will understand, when he names another gentleman and himself as "nearly all the strawberry-growers in the neighborhood of Washington city." The use made of Mr. Cammack's name was gratuitous. Mr C. has assured me personally (since Mr. R.'s letter appeared), that his

opinion was the reverse of that attributed to him; he expressed surprise at the use made of his name by a gentleman unknown to him, as Mr. R. is, and endorsed what I have previously written; not only have Messrs. Cammack, Slater, and Howlett, grown these strawberries successfully, but many others, among whom I may name Mr. I. K. Watt, at the Washington Observatory; Mr. I. Small, of Georgetown; Mr. D. Clagett, an extensive orchardist near the city. The gentlemen named are among the first Horticulturists here—nearly all members of the Washington Horticultural Society, and have the past two summers shown fruits of extraordinary beauty, but where Mr. Richards has not yet appeared "to throw them into the background."

I cannot let this opportunity pass without noticing the high system of culture adopted by Mr. Cammack, with his fruits and vegetables; more than thirty years has he steadily pursued it. When he first commenced strawberry growing he informed me that they were selling in market at four, and none over six cents per quart,—yet at the very outset he got twenty-five cents per quart. In connection with good culture he related a fact which is worth recording: a year or two since a gentleman calling at his stand, inquired the price of his strawberries; on being informed of the price (twenty-five cents per quart), he remarked he had been in Baltimore the day before, and had seen them sell at six cents per quart; to which Mr. C. replied, he had the evening previous sent 100 quarts to Baltimore, for which he received $25,—an evidence that good culture will pay.

I could point out the same superior culture in his peaches and cantalopes, asparagus; one vegetable, celery, which he has now in market, and which the public can any day see, is of the highest excellence; strangers to our city say it is superior to any which they get in any other city in the Union, the price of this vegetable is about six cents per stick, whilst Mr. C. is receiving for his best ten cents; market gardening about out city has been advanced much by the example of Mr. C., and in our sister city, by his contemporary, Mr. John Slater.

The following strawberries have succeeded here exceeding well the past season (1858), Victoria, Comte de Flanders, Vicomtesse Hericart de Thury, Triomphe de Gand, La Reine, Seedling, Eliza, etc., and may be taken as standard sorts, and be grown with confidence by any persons who wish a really good strawberry, being large, showy, and of exquisite flavor. Among the recently introduced varieties, Amazon, Exhibition, Jucunda, Magnum Bonum, Marquise de la Tour Mauburg, and Rival Queen, promise well, *in this* climate.

SHRUBBERY PLANTATIONS.

BY WILLIAM SAUNDERS, GERMANTOWN, PA.

The most distinguishable feature in English gardens is, the massiveness of their ornamental plantations, and the rich verdure of the grass. On analyzing these shrubberies we shall find that, while much of their beauty depends upon the materials of which they are composed, and the skill displayed in the arrangement, much more is the incidental result of thick planting. In this respect there is much to improve upon in the formation of pleasure-grounds with us.

It is true that we cannot have the Laurels, Arbutus, Alaternus, Garyas, or view the Hollies and Rhododendrons of more favored climates,—for although the two last are natives, the holly is so impatient of removal that it is not available in quantities, and the Rhododendron requires peculiar situations in order to develop its true beauty.

This deficiency of evergreen shrubbery with us is severely felt by those desirous of ornamenting their grounds, and I would desire to call the attention of such to the fact, that by abandoning the immediate attempt to introduce choice low-growing evergreens, and plant largely of well-known, hardy trees, and keep them low and spreading if desired, by judicious and timely pruning, they would much sooner realize massive and effective scenery, and at the same time secure conditions that would enable them to cultivate successfully many beautiful and choice shrubs.

One of the best plants for these tree shrubberies is the hemlock spruce; cutting back and trimming the branches increases rather than diminishes its beauty. Even the rigid growth of the Norway fir may be checked, by cutting out the leading shoot and removing the points of the side branches. I have known most beautiful evergreen masses produced in this way. The white pine will assume a spreading form when similarly treated; so also the Scotch and Austrian pines, and in short, all trees may be kept dwarf by careful periodical pruning.

The Deodar cedar, on account of the silvery appearance of its foliage, is well adapted to brighten and relieve the monotony produced by the dark foliaged evergreens. It is rather tender, even in the middle States, and frequently loses the topmost shoots in severe springs, but this rather increases its beauty for our purpose, and I would strongly advise those who are about planting, to set out groups of three or more plants of the above, (the plants being four or six feet apart,) deprive them of all perpendicular shoots, and encourage them to spread horizontally; surround these groups with plants of dark foliage, and a very pleasing variety of winter scenery will be produced.

The Pinus-pumilio is a compact dwarf tree, suitable for edgings or marginal plantings; Pinus cembra, Swedish juniper, and the Irish yew, from their upright growth, will impart an expression to the mass.

Then we have a large-class of Arbor Vitæs and Junipers, available for our purpose. The Mahonias are admirable in small thickets. The new Mahonia japonica promises to be perfectly hardy, and will furnish us with the long-wished-for desideratum,—a real hardy, broad-leafed evergreen shrub; it retains its color during winter, not changing to a reddish brown like the M. aquifolium.

Under the shade and shelter of these hardy shrubberies we may hopefully experiment, and with much probability of success, in the introduction of the beautiful Rhododendrons, Kalmias, Laurus, and Laburnums. Hollies in great variety would flourish when sheltered from the arid winds of spring. The Rhamnus alaternus, Aucuba-Japonica, Phillyreas, Daphnes, Chimonanthus, and the evergreen Magnolias would also be protected from excessive evaporation, and consequently pass through the severity of winter uninjured.

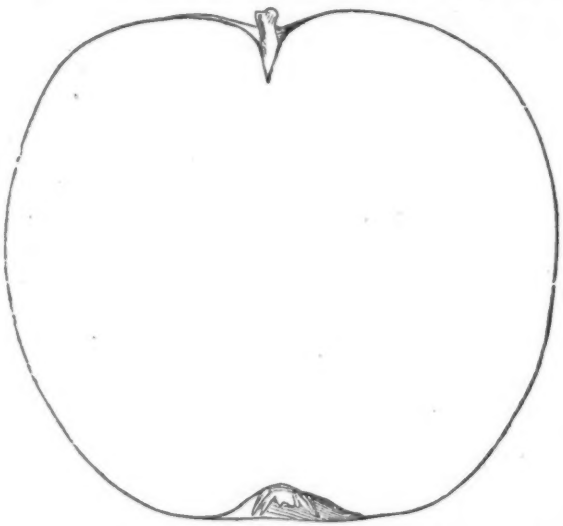
The beauty of evergreen plantations is very much enhanced in spring by introducing flowery deciduous bushes. The Dogwood, Halesias, Magnolia conspicua, M. purpurea and M. soulangeana, and the Judas tree, enliven the scenery during early summer; the dogwood and white magnolia are especially attractive when backed by evergreens.

In the matter of deciduous shrubbery we have no dearth of material; but the same treatment may be applied to deciduous trees, as suggested for evergreens. A novel feature might be produced by planting profusely of sugar and red maples, sweet and sour gums, tulip poplars, scarlet oaks, wild cherry, sassafras, etc., and keeping them in the form of low bushes; the great variety of color assumed by the foliage in autumn would have a brilliant effect, if the planting was situated so as to contrast opposing colors.

The subject might be treated much more fully, but as planting season is now at hand, these suggestions may direct attention to the matter to which they allude.

CHRONICAL APPLE.

The tree that produced this apple originated about thirty years ago on the farm of Mr. John Cotton, Putnam co., Indiana. The original tree is still living,—an upright, thrifty grower, and very hardy; it is a moderate bearer, never breaking with its fruit, but disposed to bear more or less every year. Fruit above medium size, obtusely pearmain-shaped stem, short, and deeply



sunk in a narrow cavity, calyx open, and set in a narrow shallow basin; ground color green, changing at maturity to a pale yellow, with scattering blotches and stripes of pale red,—the ground color interspersed with a few curdly dots; flesh yellowish, remarkably firm and rich, with a mild sub-acid flavor; seeds closely imbedded in a very small core. This apple is eminently qualified for long keeping. I have kept some in a green state for two years, without any particular care.

R. Ragan.

PLANTS FOR A POULTRY GARDEN.

THERE are many persons who are so partial to poultry as to make their fowls the first and the garden the second consideration, letting their young chickens have free range amongst their plants; and others who, without making any pretension to having a garden at all, are glad to grow a few plants in the poultry run. I have always been in one or other of these lists, therefore I have some experience as to what may be grown without injury, where there are fowls.

Supposing the garden is rather confined in space, and the birds have not free range over the adjoining fields, it will be requisite to grow some green food for them to pick at. Nothing answers this purpose better than some plant of the Cabbage tribe,—as Kale, Sprouts, etc., which may either be sown or transplanted for their use; they are so fond of these plants, that it is useless to attempt to grow them for any other purpose where fowls have access.

Provided a supply of such green food as they like is prepared for them, I have found that the following plants may be grown without being the least injured:—Jerusalem Artichoke, Potato, Broad Beans, Rhubarb, Parsnip, Carrot, Parsley, and most other potherbs; Scarlet Runners and French Beans, at least until the seeds ripen; Vegetable Marrow and Pumpkin, the plants being preserved from injury by a coop over them in their earliest stages; Onions, Lettuce, Turnips, etc.

Bush fruit suffers considerably from fowls,—Currants, Raspberries and Gooseberries particularly. Strawberries are destroyed by being scratched over for insects; but fruit trees generally flourish luxuriantly; and I recollect, in several bad apple seasons, noting that the apple trees in the poultry run were always the most productive of any in the neighborhood.

Of course, these remarks, as to the plants that are not injured by fowls, apply only to those cases in which the birds are freely supplied with food; for if kept in a state of semi-starvation, they devour turnips, beans, and many other things they will not touch if well fed.

I have now sixty Game Bantam chickens, of this year, running in my garden, and four old birds, and I cannot perceive that any of the plants in my first list have suffered injury.

I would wish it, however, to be understood, that I am not advocating, as a general rule, the introduction of poultry into gardens, but merely stating what plants can be safely grown where such arrrangement is unavoidable.

W. B. TEGETMEIAR.

ADDRESS ON HORTICULTURE.

BY DAVID THOMAS.

(Concluded from p. 85, Feb. No.)

THE vigor of the vine may be increased and prolonged by layering thrifty shoots, which form roots of their own, and in effect become new and independent, though still attached to the parent vine. The importance of this method may be better understood when we learn that young vines are

generally free from mildew. For four or five years after my first planting, the fruit was always fair, while others in the neighborhood suffered much. This result occasioned great surprise to some horticultural friends, who understood the cause of this singular exemption no better than I did. Time, however, at last unraveled the mystery in part. When the wood became older, and the plant in consequence diminished in vigor, my grapes were blighted as badly as theirs.

I have observed the same thing in regard to the gooseberry. The more thrifty the variety, the less danger from mildew; and generally they are exempt till the bushes are several years old. We may therefore consider this shrub, like the raspberry, an *imperfect perennial;* and we ought to prepare new plantations in time, so as always to have a supply of this fine fruit.

I never think without regret, that so few people have apricots—so easily raised, and so delicious when ripe. It comes in, too, when neither plums nor peaches are to be had, with rare exceptions. I obtained a sort from Flushing, many years ago, under the name of "peach apricot," which some pomologists pronounce a misnomer,—but whether true to its name or not, I should like to see the peach that is half as valuable. In every door-yard there ought to be one or two of such trees.

There is another fruit, too much neglected, which I would take the liberty to recommend. It is the American Mulberry. There is a very old, and a very good-natured maxim, to wit: "There is no disputing tastes,"—so when pomologists tell me there is another sort "incomparably finer," I can only say—not in reply, but in excuse—that I procured the genuine English Mulberry, and that the fruit is so sour that I do not eat it. Well, some folks like sour fruit, such as the Cornelian Cherry, but let me have the American Mulberry in preference to either. The native trees in Western New York, however, bear much smaller fruit than some varieties do, that are found three or four degrees further south; and there is one in my fruit garden from that quarter, though probably not of the very best kind, that I value as highly as any other tree within that enclosure.

Many people like the mild flavor of the huckleberry; but generally our land is unfavorable to its growth. There is a low bush, however—the dwarf service berry, (*Aronia ovalis*)—that yields a fruit somewhat similar, and grows well in *heavy*, though not in *sandy* soils. It is as easily cultivated as the currant, and bears moderately well.

But why do we want so many sorts of fruits? For the same reason that we want so many sorts of food: the pleasure that springs from variety. Another not less cogent, however, might be given. In proportion to the number of kinds cultivated, are chances for a supply in unfavorable seasons, —for the frost often destroys one sort, and leaves another; and continued rains induce decay in some, and not in others, especially among plums and cherries. Some fair skin varieties of the latter were almost worthless this year; and some of the black have suffered, while the acid sorts, as the May Duke and Morello, have generally escaped. Let us, therefore, have many kinds; and if the best sometimes offer nothing, let us have the second best.

On a former occasion, I noticed how much the best flavor of fruits depended on culture: and that two of my pear trees yielded nothing fit to eat until the land was cultivated around them, when the products became excellent. I have now another instance to relate. Into the branches of a

May Duke surrounded by sod, I inserted scions of the Belle de Choisy, and for two years the cherries were insipid. Not suspecting the cause, as the May Dukes were fine, I wondered how it had ever attained such a reputation. At last the hogs rooted up and destroyed every spire of grass in it, the ground was well pulverized, and ever since the fruit has been delicious.

Last fall I had late planted cabbages that formed large tufts of leaves, but not good heads; and I had a hope that if I could preserve them till spring, they might grow into something useful; so they were set in a trench, very closely, side by side—some straw was thrown on them, and over that about two inches of earth. As the trench was ten or twelve feet in length, two tubes were set in near each end, to let off the bad air—just such as every cabbage depot under ground, or potato heap ought to have. In the spring I was surprised at the result. Every green leaf had disappeared—the larger plants had formed good heads, though not so compact as those grown in the open air, and all were beautifully blanched, and fit for use.

One item more, and I have done. No insects, no birds, and no malady among fruit trees, have discouraged pomologists so much as the depredators of our own species—thieves in the proper sense of the word. Laws have been made sufficiently stringent, but a better public sentiment on this subject can only repress such outrages effectually; and to Horticultural Societies must we chiefly look for its general introduction. Your splendid exhibitions silently urge the spectators to produce fruit of their own. Every one that makes the attempt, enlists on the side of virtue and true civilization; and if there is room for it, becomes more moral. The man whose tree is robbed, feels sympathy for his plundered neighbor, that he never felt before; and the boy that guards his melon patch, feels more like a man, and learns to respect the property of others. In accordance with these remarks a late writer has pithily said, "I never knew a boy to steal fruit, whose father raised fruit himself."

ADDRESS OF JOHN JAY, ESQ.

The Address of Mr. Jay, entitled "A Statistical View of American Agriculture, its Home Resources and Foreign Markets," delivered at New York, before the American Geographical and Statistical Society, and published by D. Appleton & Co., in a very handsome pamphlet, is full of topics for thought. Well has it been said that "the statesman who pretends to govern, without knowing the important facts which interest society, makes a more fruitless attempt than the philosopher who should propose to make a general classification of the beings which compose the three kingdoms of nature, without knowing the essential characteristics of them."

We should all rejoice that a statistical society has now turned its attention to agricultural topics, for it cannot fail to act as a good teacher where all before was guess-work.

From these pages we take pleasure in making the following extracts:

"Looking beyond the number of individuals employed in American agriculture, to the amount of capital invested in it, you have been already told that the Superintendent of the census estimated the value of the capital,

represented by agriculture in 1850, at five billions of dollars, and that represented by all other branches of industry at less than one billion, giving to agriculture more than five-sixths of the whole; and, although these figures may be but an approximation to the truth, the proportions are probably correct.

"Notwithstanding the enormous wealth of the metropolis, the agricultural interest pays *four-fifths* of the taxes.

"Prof. J. F. W. Johnston, in his Lectures on Agricultural Chemistry, says, that *nine-tenths* of the fixed capital of all civilized nations is embarked in agriculture.

"No man in England is so high as to be independent of this great interest, no man so low as not to be affected by its prosperity or its decline. The same is true, eminently, emphatically true, with us. Agriculture feeds, to a great extent it clothes us; without it, we should not have manufactures, we should not have commerce. They all stand together like pillars in a cluster, the largest in the centre; and that largest is AGRICULTURE.

"To the existence and power of the French Government, as one of their own writers has remarked, the mildew on an ear of corn, or the *oidium* on a bunch of grapes, is of more vital consequence than the splendor of the imperial jewels, or the marvels of a thousand handicrafts. Whatever in our day cuts off the small profits of the industrial classes in Europe, or threatens multitudes with starvation, strikes at the stability of the political institutions of the land, and wields a mighty influence whether for evil or for good.

"The very existence of thrones may be affected—indeed some think their existence has been determined,—by causes apparently insignificant as the rot in the potato, or the weevil in a grain of wheat.

"The number of square miles contained in the area of the United States of America, in the present year, is within a fraction of three millions (2.936.165), somewhat more than one-third the area of North America, exclusive of the West Indies, and nearly double the area of all Europe, excepting Russia.

"When the increase of our native and foreign population shall invest with the density of New England the whole territory of the United States, its population will amount to one hundred and twenty-three millions. With the density of the Middle States, of fifty-eight (57.79) to the square mile, it would amount to one hundred and seventy millions.

"The density of Spain (78.03) would make it two hundred millions. That of France (172.74) five hundred millions. That of Great Britain (332.00) six hundred and sixty millions, while the density of Belgium (388.60), were it possible to support such a population on this continent, would give us eleven hundred and fifty millions. Such a population, however, or anything approaching to it, is a thing impossible in the United States, for the reason that a large portion of its territory is a barren waste, incapable of tillage. Such is the character of the space between the 98th meridian and the Rocky Mountains, denominated "The Great American Plain," and the space from the Rocky Mountains to the Pacific, with the exception of the rich but narrow belt along the ocean, may also be regarded, in comparison with other portions of the United States, as a wilderness unfitted for the use of the husbandman.

(TO BE CONTINUED.)

EDITOR'S TABLE.

To Contributors and Exchanges, &c., &c.

Communications, Letters, Catalogues, Periodicals, &c., &c., intended for the perusal of the Editor, should be uniformly directed to the HORTICULTURIST, *Germantown*, (*Philadelphia,*) *Pa.* Packages by Express, &c., should be directed to the Editor, as above, by name; they will thus reach him almost beyond a doubt.

A WARM MARCH.—Spring fairly broke upon us in the middle of March, with the prospect of early work and beauty,—possibly too early for the fruit buds,—but let us always hope for the best.

MR. WILLIAM SAUNDERS has accepted the office of laying out the great cemetery of Chicago; of the suitableness of the site we can speak from actual inspection, and shall have something more to say about it and the Great West next month.

LENOIR AND WARREN GRAPE VINES, from Peters, Harden & Co., Atlanta, Ga., will enable us to judge of their value in a middle climate.

THE RHODE ISLAND HORTICULTURAL SOCIETY holds an exhibition in June, for which occasion a liberal list of premiums is announced.

The schedule for 1859 of the Chester County Pennsylvania Horticultural Society, has been issued. It includes manufactures of cotton, wool, and paper.

PARKS are to be the feature of American cities. At New York, every facility of money and men has been granted; at Philadelphia, Mr. Sidney carried off the first prize of $500 for Fair Mount Park; in the West they are talking of parks everywhere, and will have them, too. They will prove great civilizers, and incite to private improvements wherever they are well made and *properly planted*.

NORTH CAROLINA.—We hear quite too little of the amateur horticulturists of North Carolina, and therefore hail with particular pleasure the Annual Address delivered by Senator Thomas L. Clingman, before the State Agricultural Society in October last. Incidentally it touches upon many topics of interest, and descants upon the resources of the State, of whose importance those who merely traverse its sandy belt in the railroads, have no just idea. The western portion is not inferior to that of Virginia, and possesses a fine climate in which fruits will be extensively naturalized. There is a race of high-minded gentlemen and scholars here whom we should be glad to see members of our parish, and pursuing fruit and flower culture as well as agriculture and politics. Cicero, bent on political life, is yet full of longings for his country house at Tusculum; Horace, the favorite of the court of Augustus, and with a keen relish for court pleasures, yet loves the sights and sounds of his beloved Arno's banks.

North Carolina has an interesting, romantic history. In 1854, the first Europeans who ever touched the shores of any one of the old thirteen States, approached this coast under command of Amadas and Barlowe. In the report to Sir Walter Raleigh, drawn up by the latter, it is said that two days before they came in sight of the land, "We smelled so sweet and so strong a smell, as if we had been in the midst of some delicate garden, abounding with all kinds of

odoriferous flowers." On reaching the land it was found "so full of grapes, as the very beating and surge of the sea overflowed them, of which we found such plenty, as well there as in all places else, both on the sand and on the green soil, on the hills as in the plains, as well on every little shrub, as also climbing the tops of high cedars, that I think in all the world the like abundance is not to be found; and myself having seen those parts of Europe that most abound, find such difference as were incredible to be written." Inside of the long narrow tract of islands, along which they coasted for two hundred miles, they found what "appeared another great sea," between them and the main land. Everywhere they were struck with surprise, as they beheld the variety, the magnitude and beauty of the forest trees, which not only surpassed those of "Bohemia, Muscovia or Hercynia," but "bettering the cedars of the Azores, of the Indies, or Lybanus."

The following extracts from Mr. Clingman's address possess interest for our readers: "In the elevated parts there is almost every variety of landscape, soil, and production. At its extreme borders, there rises up a mountainous region, with a bolder scenery and a more bracing climate. Few of our own citizens realize the extent of this district, or are aware of the fact that it is three hundred miles in length, and has probably more than forty peaks that surpass in altitude Mount Washington, long regarded as the most elevated point in the Atlantic States. . .

The landscape is variegated, too, by tracts of thirty and even forty miles in extent, covered with dense forests of the balsam fir trees, appearing in the distance dark as "the plumage of the raven's wing," and green carpets of elastic moss, and countless vernal flowers, among which the numerous species of the azalia, the kalmia, and the rhododendron, especially, contend in the variety, delicacy and brilliancy of their hues. From the sides of the mountains flow cold and limpid streams along broad and beautiful valleys. Though such a region as this can never weary the eye, its chief merit is, that almost every part of it is fitted to be occupied by, and to minister to the wants of man. . .

While the seaboard counties have trees peculiar to that region—like the cypress, juniper, live-oak, and the gigantic pines of the swamps, fit to become the "masts of great admirals"—and the mountains such varieties as are suited to a hardier climate, the State, as a whole, seems to contain representatives of almost all the trees of the North American forest, in their fullest and grandest development, and afford in the greatest profusion all manner of timber and beautiful woods for the uses of the artificer.

When we look beneath the surface of the earth, there are abundant objects of interest. North Carolina has the distinction of being the first of all the governments of the world that ordered a geological survey of its territory; and she has, in my opinion, a greater variety of mineral substances than any single State of the Union."

The grape is indigenous to all parts of the State, and it is believed North Carolina will become a great wine-producing region. Mr. Clingman has penned a scholarly and very attractive address, for the receipt of which we are much indebted to his own frank.

THE NEW PATENT OFFICE REPORT is a valuable book, and may be read with profit by all. We may point to the essays on salt-making, on animals, on the Sorghum cane, fruits and wine, and textile and forage crops, succeeded by Professor Joseph Henry's on meteorology, as highly creditable.

Major L. Conte, of Philadelphia, contributes an article on American grape vines, in which he says that all our American grape vines require a different treatment from those of Europe; and agreeing with some of our late correspondents, he asserts that even the pruning of them in the most scientific manner does not appear to produce any good effect; but if left to their own growth, they are more productive than when they fall under the hands of the most skillful gardener. "I have never seen," he continues, "any vine, comparatively speaking, produce such large crops of fruit as those which were never pruned and trained upon a stake, being conducted from one festoon to another, at such a distance as the length of

the stem required. By this means the clusters of berries hang down from the branches, and have the full benefit of the sun and the air to bring them to the greatest perfection."

After speaking of the Isabella and Catawbas as sweet and agreeable, Major L. Conte says, "But the best of all the varieties is the white-fruited, which does not differ in the leaf from the first described, (the Fox grape,) but the racemes are large, long, and dense, the berries oval, white or green, with a slight coppery tinge on the side exposed to the sun. None of our American vines is so worthy of a careful cultivation as this." What grape does he allude to? Is it the Anna?

Professor Henry has a remark or two which we copy with approbation:—"*Mere Practical Men.* We have no sympathy with the cant of the day with reference to 'practical men,' if by this term is meant those who act without reference to well established general laws, and are merely guided by empirical rules or undigested experience. However rapidly and skillfully such a person may perform his task, and however useful he may be within the limited sphere of his experience, and in the practice of rules given by others, he is incapable of making true progress. His attempts at improvement are generally not only failures, involving a loss of time, of labor, and of materials, but such as could readily have been predicted by any one having the requisite amount of scientific information. It is the combination of theoretical knowledge with practical skill, which forms the most efficient and reliable character, and it should be the object of the agricultural colleges to produce educational results of this kind. * * *

"The great facts of the future of agriculture are to be derived from the use of the microscope, the crucible, the balance, the galvanic battery, the polariscope, and the prism, and from the scientific generalizations which are deduced from these by the profound reflections of men who *think* in contradistinction to those who *act*. The intelligent farmer should be able, as already said, properly to appreciate the value of scientific discoveries; and for this purpose his studies should not be confined merely to rules or empirical receipts, but also to the general principles on which they are or should be founded."

NEW GARDEN SHRUBS, &C.—The planting season having arrived, it may be well to remind our readers of some of the new and rarer shrubs which are now in request. Among them are *Prunus Sinensis flore albo pleno*. It forces beautifully, and in a common greenhouse will display in January and February a great profusion of superb white flowers. But it is as a perfectly hardy out-door shrub that it is especially valuable. Indeed, there has not been so important an addition to our blooming shrubs for years.

The fine double *Spirea Reevisii flore pleno*, though not so new as the plant just named, is very beautiful, and quite the best of its valuable class.

Stuartia pentagynia is one of the larger-growing shrubs, attaining the height of fifteen to twenty feet. Though an American plant, it is yet rarely met with, and indeed, has no regular common name. It bears in July and August a flower of the form of a single Camellia, and cream-colored, with a brown centre. No one who cares for flowers, when they are so scarce as they are with us in the hotter summer months, should be without this member of the Camellia family.

One wonders that so fine a tree as the *Andromeda arborea* should so seldom be met with in ornamental grounds. Its spring flowers entitle it to a place, and the deep color of its foliage in the autumn is striking and very beautiful. It belongs to the Erica family, and is known under the common name of Sorrel Tree.

Some of the *new* varieties of the justly admired *Wistaria* (*Glycine Sinensis*) are deserving of notice:—*Wistaria Sinensis flore albo* is not an early bloomer, but can with confidence be recommended. Planted with Sinensis, the contrast of its beautiful white flowers with the blue of the latter is very superb. *Wistaria frutescens magnifica*, a European seedling of the American species, has flowers of a large delicate violet, with a white eye. Its strong growth and beautiful bloom make it a great acquisition. Among the new climbers are the honeysuckles, *Lonicera*

brachypoda and *Standishii*; they are new evergreen varieties and much valued. *Clematis Hendersonii* is an erect sort, bearing a profusion of dark blue flowers for a period of from two to three months. *Clematis Sophia*, *monstrosa*, *Helene*, *argusea grandiflora*, and *Sieboldii*, or *bicolor*, are Japan varieties, and much admired by lovers of choice vines.

While naming these, we cannot forbear calling attention to *Bignonia grandiflora*, long known to many. Its superb flowers are abundant through the summer, and it is found to be a decided acquisition to the number of *pot* plants. We must also name *Salix caprea tricolor*, a very curious and pretty sort of willow of late introduction.

ARCHITECTURE AND ITS POWER.—Alluding to the too general impression that you cannot feel interested in architecture, that you do not, and *cannot* care about it, Mr. Ruskin says—you think within yourselves, "it is not right that architecture should be interesting. It is a very grand thing this architecture, but essentially unentertaining. It is its duty to be dull—it is monotonous by law; it cannot be correct and yet amusing." Believe me, it is not so. All things that are worth doing in art, are interesting and attractive when they are done. There is no law of right which consecrates dullness. The proof of a thing's being right is, that it has power over the heart, that it excites us, wins us, or helps us. All good art has the *capacity of pleasing*, if people will attend to it; there is no law against its pleasing; but on the contrary something wrong either in the spectator or the art, when it ceases to please.

FOUNTAINS.—Who ever said anything about fountains half so clever as this: There is no subject of street ornament half so wisely chosen as the fountain, where it is a fountain of use; for it is just there that the happiest pause takes place in the labor of the day, when the pitcher is rested on the edge of it, and the breath of the bearer is drawn deeply, and the hair swept from the forehead, and the uprightness of the form declined against the marble ledge, and the sound of the kind word or light laugh mixes with the trickling of the falling water, heard shriller and shriller as the pitcher fills. What pause is so sweet as that—so full of the depth of ancient days, so softened with the calm of pastoral solitude?

BUILDING ONE'S HOUSE.—"I would have," says the same author, "our ordinary dwelling houses *built to last*, and built to be lovely; as rich and full of pleasantness as may be, within and without, and with such differences as might suit and express each man's character and occupation, and partly his history.

TOBACCO.—Tobacco and its adulterations, is the title of a new English book by Henry P. Prescott; it proves that Europeans smoke a compound of the leaves of rhubarb, docks, burdock, beech, plantain, oak, and elm, and other unsavory compounds. He shows that the leaves of different plants are frequently covered with minute hairs, which, to a casual observer, look all alike, but on examination with the microscope they are found to present differences so decided that the kind of leaf to which they belong can be clearly indicated. Thus the minute fragments of leaves may be made to tell the story of their origin.

EGGS.—Statistical returns show that the supply of eggs to England from France last year reached 20C,000,000.

GRAPES.—We are kindly permitted to copy portions of a letter from a grower of grape vines to an Eastern friend.

The advice seems to us to contain common sense, and to the point; and on the writer's part is so unselfish, that we cannot but commend it to our readers; especially noticing what he says about the purchase of a great number of varieties.

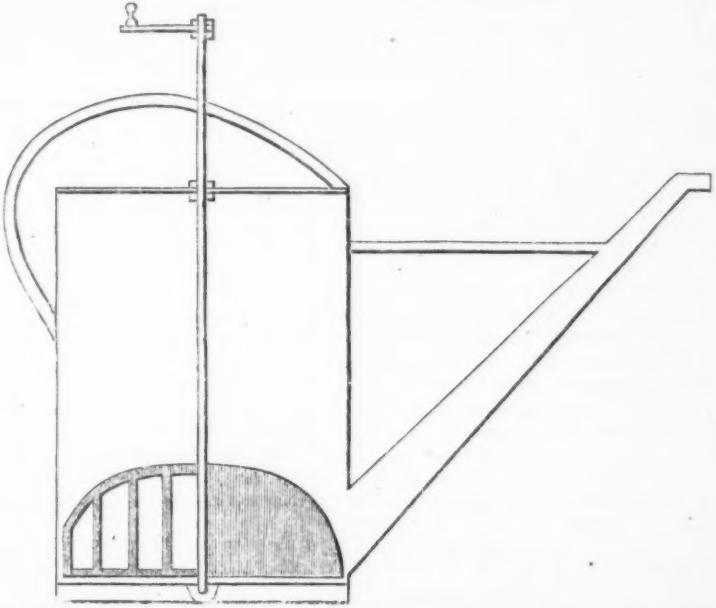
. . . . . "I cannot advise you to the purchase of a great many sorts of vines. Many of the kinds blazoned abroad with great names and much advertising, are probably no improvement upon the old established and well tried sorts. . . . . The *Clara* you had better buy at home, in Philadelphia, and not send to Rochester for what Peter Raabe can furnish. . . . . Among the varieties that we cultivate, (white, amber, and black,) some are very hardy—some are very early—some are very sweet—some are very juicy—some are very large—some bear great crops—some have little or no pulp and few seeds; and some have thin

skins and delicate flavor: but you will with difficulty find a variety that combines many of these qualities. . . . . Deal with nurserymen whom you can trust; for all the watching in the world won't make a rogue honest: and you had better pay a fair price for the genuine article than to get a spurious vine for half a dime. . . . . Think how many good vines you wish to cultivate and can cultivate well—then think how many of them you wish to be very early; but do not calculate on these early ones being the best in quality—decide whether you want any very large grapes—very sweet grapes—very juicy grapes, &c., and above all, be particular to know whether you need perfectly hardy vines or not. If you can protect them each winter and do not need to be so careful to secure the hardy sorts, you can often among the 'half hardy' get better flavored and more delicate fruit.

Most truly yours, &c., C. P. BISSELL.

Rochester, N. Y.

WATERING POT FOR ARTIFICIAL MANURE.—This watering pot was invented by Dr. Wedenbuch, of Wurtemberg. By the use of this, one part of manure to twenty parts of water, or charcoal powder at the same rate, is easily mixed by means of turning the spindle. The powder being perfectly mixed with the water has no time to settle before it is discharged



where it is wanted. The effect of this manure is too well known to need mentioning here. It will be seen that the principle is somewhat like that of some churns. It has been much adopted in Germany.

By the use of charcoal powder the ammonia in the manure employed is absorbed and retained, and destructive properties are modified.—*Deutches Magazine, Stuttgard.*

DR. HOOKER'S beautiful *Flora of Tasmania* continues to appear with admirable punctuality. Only the other day we announced the publication of the sixth part, with its charming figures of Tasmanian Orchids; and the seventh number is now before us, with a continuation of the Orchids and letter-press as far as the mosses, which have been entrusted to the care of Mr.

Wilson, the learned muscologist. The drawings of Caladenia, an exquisite form of Australian Orchids, exceed in beauty anything which the work has yet produced.

GRASS AND ITS LESSONS.—Perhaps the finest passage relating to grass in our literature is found in Ruskin's essay, which runs thus: "There are several lessons symbolically connected with this subject which we must not allow to escape us. Observe the peculiar characteristics of the grass, which adapt it especially for the service of man, are its apparent *humility* and *cheerfulness*. Its humility, in that it seems only created for the lowest service,—appointed to be trodden on, and fed upon. Its cheerfulness, in that it seems to exult under all kinds of violence and suffering. You roll it, and it is stronger the next day; you mow it, and it multiplies its shoots, as if it were grateful; you tread upon it, and it only sends up richer perfume. Spring comes, and it rejoices with all the earth,—glowing with variegated flame of flowers,—waving in soft depth of fruitful strength. Winter comes, and though it will not mock its fellow plants by growing then, it will not pine and mourn, and turn colorless and leafless as they. It is always green, and it is only brighter and gayer for the hoar frost."

CATALOGUES, &C., RECEIVED.—Catalogue of selected roses and other hardy plants, including both old and new varieties, cultivated and for sale by James Pentland, at the Green Mount Garden, Baltimore. This is a very full catalogue, including the newest and best plants known, and among them the new candidate for public favor, the Rose "George Peabody," of which we think very highly.

Catalogue of Fruit and Ornamental Trees, Shrubs, and Roses, cultivated and for sale by John Saul, Washington, D. C. A large list of all the best things known, and one which cannot fail to attract attention.

Cheltenham Nurseries; Fruit and Ornamental Trees, Shrubbery, &c. Hacker & Haines, on Oak Lane, near Germantown, Pa. A good assortment and on reasonable terms.

Catalogue of Fruit and Ornamental Trees, &c., &c., at the Nursery of W. L. Ferris, Throgg's Neck, Weschester co., New York. Everything that is desirable seems to be included.

R. Buist's Select Catalogue of Greenhouse, Hothouse, and hardy plants, near Philadelphia. Store 922 Market St.

A Descriptive Catalogue of Hardy Trees and Shrubs grown and for sale by Robert Buist, as above. Both catalogues are evidences of the knowledge and accuracy of the author, to whom it would be difficult to send an order for a plant or tree of value which he could not supply from his own houses or grounds.

"Recollections of a Life-time; or, Men and Things I Have Seen." By S. G. Goodrich, author of "Peter Parley's Tales."

This work comes out in a new dress from the publisher of the *Horticulturist*—two large and handsome volumes, illustrated and well-printed. As the history of the rise of an American boy, graphically told, Mr. Goodrich's life has few superiors, and we are sure that its principles are better than most.

Catalogue of Fruit and Ornamental Trees, &c., at the Harmony Grove Nurseries, Isaac Jackson & Co., Proprietors, Jennerville, Chester co., Pa. An extensive and valuable stock in the hands of reliable nurserymen.

Nursery of John C. Teas, Raysville, Indiana. Trade prices, 1858-9. A fine stock adapted to the wants of the great West.

Annual Catalogue of Southern acclimated trees, &c., for sale at the Pomaria Nurseries address Wm. Sumner, Pomaria, S. C. A very valuable catalogue.

Public Exercises at the inauguration of Rev. Samuel Ware Fisher, D.D., as the sixth President of Hamilton College, at Clinton, N. Y. Whatever they do here they do well.

Priced list of vines and plants, by A. W. Potter & Co., Grape-Lawn Nurseries, Knowlesville, Orleans Co., N. Y.

Catalogue of the trees, &c., cultivated at the Bellevue Nurseries, Canton, Mississippi, H. A. Swasey & Co., proprietors. Full and valuable.

R. Buist's Select Catalogue of Greenhouse, Hothouse, and Hardy Plants. Philadelphia, 1859–60. Such a list as is rarely sent out by any cultivator, and reliable.

The Sweet Potato, its culture in the North, with directions. O. S. Murray & Son, 20 Mile Stand, Warren Co., Ohio. Very complete and useful.

Bridgeman's Descriptive Catalogue, No. 6. Select Bedding Plants, Roses, Bulbs, &c., 878 Broadway, New York. Everything is here to suit a luxurious and educated demand.

Fruit, Ornamental, and Evergreen Trees, cultivated by Lewis Nicholson, Lake Erie Nurseries, East Rockport, Ohio.

Catalogue of Garden and Field Seeds, cultivated and sold by A. F. Mayher & Co., Agricultural Warehouse and Seed Store, at new stand, No. 54 Vesey St., New York.

ANSWERS TO CORRESPONDENTS.

ESTHER W.—Your query is a little out of the line of this journal. Refer to Ruskin, who says somewhere, if we are not mistaken, that there is really nothing to deserve admiration in the firing of packets of gunpowder, in the display of stocks of warehouses. But admiration excited by the budding of a flower is a poetical feeling, because it is impossible that this manifestation of spiritual power and vital beauty can ever be enough admired. Mark the distinction.

F. M. SANDERSON, M. D.—You will find all the particulars regarding an orchard house in our pages very soon.

REMUNERATION OF GARDENERS.—W. C. C.; on this subject we find a quotation from George Glenny, in the *Cottage Gardener*, which may partly apply to your query. It is from "The New Principles of Gardening," by Batty Langley, published in 1727. There was no doubt as much ground of complaint in old times as now. Batty says: "I cannot well conclude this section without taking notice of the great happiness a gentleman possesses when he is so well fixed with a skilful, industrious gardener, by whose judgment and care he is daily enjoying the pleasures and advantages of the best fruits, herbs, salads, etc., in the greatest perfection, which recompense is all as can be received for the expenses and labors thereof. And on the other hand, how unhappy it is for a gentleman to have an unskilful person descended from the tail of a coach, stable, etc., who taking upon him, first a blue apron, and then the name of a gardener, assumes the government of choice trees committed to his care, because he has been much acquainted with cleaning knives, sweeping stables, etc., which he thinks are necessary towards their pruning, as well as making hotbeds, etc., without considering that those trees and plants were obtained with much labor, long time, and great expense, which by his unskilful hand shall in one or two years' time be totally ruined, to the great loss of his master, and his eternal shame. I say where misfortunes of this nature happen, which is too frequent, 'tis a very great loss and disappointment, and a crime unpardonable; and therefore I cannot but take the liberty to say, that a good gardener deserves a much greater respect and encouragement than that of stewards, butlers, etc., who oftentimes undeservedly possess a much larger share thereof."

Gossip.

LICHENS which grow on the summit of trees, have been found to contain an uncommon proportion of oxide of iron, a curious illustration of the peculiar powers which various plants possess of separating the inorganic matters presented to them in their food. Certain lichens make the dye called litmus, largely used by manufacturers under the name of orchall or Archill. The common yellow pale lichen contains a peculiar coloring matter, called Parietin, of a bright yellow. This is heightened by a drop of nitric, muriatic, or sulphuric acid; while minute quantities of ammonia change it to a rich red, inclining to purple. The Iceland Moss is a

familiar illustration of the use of lichens. Tripe de Roche, a lichen, Canadian hunters have been reduced to subsist upon, and other kinds are eaten in the deserts of Asia, in large quantities, by the nomade tribes of those regions.

It is only lately that ferns have been well understood; to Mohl we are indebted for their illustration. One of the most interesting of them is that of the Baranets, or Baromets, called also the Scythian Lamb, in which, by cutting off the leaves, except on a small portion of the stalk of a woolly stemmed species, and turning it upside down, simple people have been persuaded that there existed in the deserts of Scythia, creatures half animal and half plant.

CLIMATOLOGY.—The central idea of the comparative climatology of the temperate latitudes of the continents of Europe and America, is that of *correspondence in like latitudes and like geographical positions*. This implies a symmetry of arrangements in the climates, which greatly assists in determining what the conditions are, and still more assists the practical business of putting them to use. Thus Vancouver's Island is analogous to the British Islands—in like latitudes and on the same side of the continent—and from observations near it, the cool summer, the warm winter, and general humidity of England, is found. The general inference may be drawn, that the cultivation and productive capacity of Great Britain may be reproduced on our Pacific coast, and all the vast systems of industrial, commercial, and social results which follow in the train of such conditions.

CORKS are often infested with a fungus that destroys their value. Happily these affections of corks are not common, but should they prove troublesome, we can recommend no better remedy than what we before suggested, viz, soaking the corks in *boiling* water, dipping the exposed ends in some resinous composition, and covering the whole with a metal capsule. It will be as hard then, we conceive, for the fungus to intrude into the sacred cavity, as it was for the genii to get out of the sealed box.

FUMIGATING PLANTS.—Observing a receipt for easy fumigation, I beg to hand you another, which I know from experience never fails, and is a still easier method; the plan was taught me by a foreman gardener, so I claim no originality of idea; but perhaps the hint may be as acceptable to amateurs as it was to me.

Get a wire riddle, or sieve, an article which ought to be in the possession of every one who pots flowers, and place it, bottom upwards, on three inverted flower pots, either on the floor, or lowest shelf of the greenhouse; then, on the riddle put a few red hot cinders, and on these some of the commonest rag tobacco. If economy is desired, mix double the quantity of damp moss with the tobacco, waive the riddle gently up and down to cause the draught to thoroughly ignite the moss, &c., replace it on the inverted pots, retire immediately, close doors and windows, and do not go in until the next morning, when the plants should be well syringed with rain water. I do this twice a year, and I keep my little greenhouse clear from blight, and all my plants clean and healthy.—B.

HEALTHY HOMES.—If unnecessary death and disease be things for which any one is to account; if the suppliers of our dwellings are answerable for economizing at the cost of life; if they have any duty in building for others; in short, if any man be responsible for human life wasted by human agency; if at the 'hand of every man's brother' shall be required the 'life of man,' then should every part 'of our dwellings be contrived according to whatever our latest science may prove necessary,' in order to make them healthy homes.

THE CAMELLIA-FLOWERED PEACH.—I send you, as a curiosity, a fruit of this peach. I have not tasted it, but it smells well.—*R. Glendinning.* [It would seem that all the double-flowered peaches have had a common origin, judging from the quality of their fruit. That with which Mr. Glendinning has favored us is a colorless fragrant Clingstone, with an agreeable sub-acid, tender flesh, which, however, has the fault of being slightly austere and bitter.]—*J. R. S., in the Gardener's Chronicle.*

ROSES BLOOMING LATE IN AUTUMN.—Some remarks having appeared in a late number

about roses then in bloom, I took pains to go to-day (Nov. 16) round the rose quarters in Mr. Epps' nursery, at Maidstone, and found the following fully in bloom. I would remark, however, that the ground is considerably elevated, and the subsoil limestone, covered with a strong, friable loam. These circumstances are, no doubt, favorable to late blooms of every kind, as well as of the rose. On the contrary, in Mr. Epps' nursery, at Ashford, which is in a level country, the roses are all quite out of flower. Whoever, then, has a rosery on an elevated situation, may plant the same sorts of roses, and expect blooms late in the autumn.

Roses in bloom, November 16th; Gloire de Dijon, Comte de Paris, Souvenir de Malmaison, Dupetit Thouars, La Biche, Comte de Nanteuil, Armosa, Duchesse d'Orleans, Devoniensis, Bourbon Queen, Aimée Vibert, Solfaterre, Safrano, Mrs. Bosanquet, Abricot, Sir. J. Paxton, and several others in bud.—T. A., *in London Florist*.

Eccentric Dinner.—A paragraph is quoted in *Notes and Queries* from the *Inventor's Advocate*, dated nine years ago, describing a dinner given at the baths of Lucca by a certain Lord B——. The meat, fish, and vegetables were at least two years old, having been preserved in a way that is now common; the carafes were supplied with water which originally belonged to the sea, but had been changed into fresh water by a chemical process then recently discovered; the wine had been fished up by means of the diving-bell, from the bottom of the Thames, where it had lain in a sunken ship more than a century; and the bread was made from wheat found by Lord B—— himself in one of the pyramids, and sown in England. To a repast of this kind, we may say, we could now add a dry powder liquefied even at the table into cream, the produce of the cow, and fruit of bygone seasons apparently freshly gathered. If such details had been given not a great many years ago in a fairy legend, they would have been criticised as impossibilities unnecessarily wild and extravagant.

How to Identify Stolen Fruit.—When the thief gets off undiscovered with his booty,—the finest peaches, nectarines or apricots on the wall,—it is usual to give them up for lost. Who could identify fruit? Who could say, these things were stolen from me, and not from somebody else? Any person can do so who will take a very little trouble beforehand, in anticipation of the chance of robbery. Let him set a mark on his most promising pieces of fruit, when in a green state, by affixing to them, on the side next the sun, an adhesive label of his initials, or any other private mark. When the fruit is ripe, the labeled spot will still remain green; and when a capture is made, the thief will be petrified at finding that there is conclusive evidence against him, even in the peach itself. This precaution is described in *Notes and Queries*—English! of course.

Of Carpenter's well-known "Vegetable Physiology and Systematic Botany," a new edition has just appeared (12mo, Bohn, pp. 606), under the care of Dr. Lankester, who thus states the extent to which changes have been made from the last edition:

"I have only ventured to change somewhat the terminology, and to make those additions which the progress of research, in the lapse of time between the last and present editions, seemed to demand. The introductory chapters, on the structure of Cryptogamia, in the last edition of the work, I have withdrawn, to make room for new matter, and the account of the function of reproduction in these plants, both in the physiological and the systematical parts of the work, has been re-written."

Miscellanea.

We regret to announce the decease of Professor Charles Morren, at Liège, in the 52d year of his age, after a very long and cruel illness. He was the author of a considerable number of curious papers on various points of interest in vegetable physiology, but was best known as the editor of the *Annales de la Societie Royale d'Agriculture et de Botanique de Gand*, a Belgian

work of the same class as "Paxton's Flower Garden," which terminated in 1849 with its fifth volume.

THE LONDON ZOÖLOGICAL SOCIETY have had a notice of a talking canary—the second instance of the kind on record. The bird in question was, owing to the neglect of its parents, brought up by hand, and so became more familiar with human speech than ornithological warblings. At the age of three months it began to talk, saying *kissie! kissie!* and since then it has gone on adding to its vocabulary, and now repeats for hours a succession of phrases, comprehending about a dozen words, whistling from time to time a bar of *God save the Queen.*

CELERY, ESSENCE OF.—This will be found very useful for flavoring soups, or broth of any kind, and a few drops of it will communicate the celery flavor to a pint of soup. Bruise half an ounce of celery seed, and put it in a bottle; then pour over it a quarter of a pint of brandy; and after standing a fortnight well corked, strain the spirit from the seeds and bottle it, when it will be fit for use.

BEET ROOT, if roasted or baked in the oven, preserves its flavor much superior to the same vegetable if boiled.

RECEIPT FOR WINTER SALAD.—Boil one or two onions quite mild; when cold mash them, and mix with sliced celery and cooked beet-root. Dress this salad with oil, vinegar, salt, and pepper. This salad, with hot meat, will be found very nice in the winter months.

UNFRUITFUL PEAR TREES.—By cultivating your border with cabbages and other vegetables, you drive the roots of your pear trees down into the subsoil, where they have not sufficient action and vigor to support and develop the young fruit. Dig a trench round them as deep as they go; cut off all tap roots that penetrate to the sub-soil; lay the young and healthy roots near the surface; and keep them there, by encouraging them with a light top-dressing annually. Never grow cabbages on your fruit-tree borders.

MILDEW.—Paint your vines, stems, and branches, and the entire of your vinery and wall, with a mixture of lime, flowers of sulphur, soft-soap, and water. So soon as the vine buds begin to swell in the spring, sprinkle flowers of sulphur over the borders. During their growth in summer, though no mildew is perceptible, fill the house occasionally with fumes of sulphur, by placing some on plates of iron kept hot by boiling water. You can easily do this by many simple modes.

WIRE-WORMS IN BULBOUS ROOTS.—A gentleman informs us that for some time he could not bloom the Lilium lancifolium in the open borders, the bulbs being destroyed by the wire-worms. After trying various things, he at last bethought himself of using powdered glass, in the following manner. He prepared his ground, made a hole, put in a quarter of an inch of powdered glass, then half an inch of silver sand, and placed the bulb on the top; then half an inch of sand all round the bulb, with a quarter of an inch of glass all round, and then covered up in the usual way. He has not since been troubled with a single wire-worm, and blooms the plants beautifully.

THE YELLOW WAGTAIL.—A Yellow Wagtail has been amusing himself by thumping against a window, similarly to the one described by "Z. A., Dartmouth." A zinc water-spout crosses before the window, eight or ten inches distant; the Wagtail jumps from this, and raps the glass hard with its beak, sometimes from the window-sill. It does not appear much irritated, as if fighting with a supposed antagonist, and it cannot be for insects. Drawing the blind down does not affect its operations at all; neither does a stuffed hawk placed against the glass inside. It sometimes attacks another window for a short time. Some years ago one made a similar attack, but that was a black and white Wagtail; and in the spring of the year it persevered for some weeks, and then discontinued.—W. M., *Hanley Castle.*

HOYA CARNOSA.—"I beg to send you a report of a small plant of *Hoya carnosa*, which has flowered three times with me this summer, each time having from thirty to forty trusses of

bloom. I have counted thirty-three trusses fully expanded at once. The plant is grown in a six-inch pot, and is about fifteen inches high from the rim, and nine inches through, merely coiled round some sticks. Perhaps you, or some of your readers, will oblige by giving us an account of their experience with this fine old plant?"—J. CALGATE, *Gardener to W. F. Woolley, Esq., Campden House, Kensington.*

[There are several accounts in previous volumes of how to bloom this fine old plant. Plenty of light in summer, then moderate water, all the sun possible in autumn, and curtailing water, giving no more than will keep the thick leaves from drying until showing bloom next spring, are the principal things. We consider you have been extra successful with such a small plant.]

HOYA CARNOSA SEED.—"I have a *Hoya carnosa*, which has blossomed twice this year, and which has produced one seed-pod from the first bloom. Two or three years back, I had a dozen or more seed-pods. Will you tell me if this Hoya can be propagated by seed? and, if it can, whether there is any chance of a variety?"—J. FLAX.

[The seeds will grow easily enough; but there is no chance of the seedlings varying from the type; nor would there be any merit or improvement, if they did. There is no Hoya yet like the old *carnosa*, when grown first-rate, with a thousand clusters of flowers overhead, and a drop of honey hanging from at least 10,000 of the flowers. We did once see it so, and only once. It was planted in a rich new border, at the back of a large stove. The back wall was fifteen feet high and forty feet long, and two thirds of all this brickwork was covered with the good, honest old Hoya, and trained horizontally, as regularly as the joints of the bricks.]

Correspondence.

[Our London Correspondence.]

MR. EDITOR:—There has been rather a tempest in a tea-pot at the Colchester Chrysanthemum show, that has got into the country papers, and will amuse some of your gardening readers. It appears that a certain Mr. Hedge grew some specimen Chrysanthemums in *bottomless* pots, thereby gaining the same kind of advantage that others attempted in laying grape vines attached to big roots through pots, and when the grapes were ripe cutting off the branch. Mr. Hedge got the advantage of finer flowers by having more earth to his roots, but the trick was discovered, and his flowers cast out. He sued the Society for £2, transportation and expenses, and in return, the Society resolved "that Mr. John Henry Hedge having attempted to gain prizes in direct violation of regulation 13, he be forever expelled from the Society," which was carried 22 to 2; so poor John Henry cannot attempt to hedge, at least at Colchester, any more. "Forever" seems a great while, however.

I have lately witnessed the most extraordinary benefits from the use of what is called here East India oil, for sprains, &c., in cattle, and have been fortunate in procuring the following receipt for its manufacture, which may be valuable to some of your readers:—1 quart of linseed oil, 1 ounce of powdered verdigris, beat well together in a mortar; dissolve 1 ounce of camphor with 1½ ounce of spirits of wine, beat 2 ounces of soft soap in the mortar till it becomes a complete froth; add ½ pint of water as slow as you can, at the same time keep beating it. Mix all together; add 1 pint of spirits of turpentine. Shake it well together.

Sir William Hooker in his last report of Kew Gardens, gives the following figures of the number of visitors, which has gradually increased from 9,174 in 1841, to 361,978 in 1857, and he notes improved conduct and general good behaviour, the only return asked for the great privilege of inspection. When you in America have no president-making to do, perhaps you will turn your attention to benefiting the public by an economic museum. Of the one at Kew Sir William says: "The old museum contains glazed cabinets measuring 6,000 superficial feet. One has only to see the immense numbers of people, from the prince to the peasant, who visit

these collections, and to be told that almost every day application is made for information respecting some part or other of them, the woods, the fibres, the drugs, the dyes, &c., to appreciate the practical utility of these museums. During the past year, the important series of specimens obtained by gift and purchase from the 'Exposition Universelle' at Paris, and the valuable donations of the Commissioners for the 'Great Exhibition' in 1851, have been received and deposited in their proper places."

A new nursery for the supply of trees to the metropolitan parks, has been formed at Kew. The demand was so great that suitable kinds could not be procured in the market; about 10,000 trees have thus been supplied.

A machine-making firm in Surrey have brought out a "blast-drill," over which agriculturists ought to chant praises, because turnip-growing is to become therewith a matter of absolute certainty, seeing that it makes short work with the fly. Drawn up and down a field, it dusts the young leaves of the turnip plants with a mixture of lime and soot, not on one side only, but on both sides; and while the fans are performing this salutary operation, they create a strong indraught, which sucks in and annihilates the fly. What will the entomologists say?

Reports respecting the Dioscorea continue to come in favorable to the cultivation of that root; some weighing more than four pounds have been exhibited, and a general feeling in its favor seems to be abroad.

The new French strawberries are: Comte de Paris, Marquise de Latour Maubourg, Princesse Royale, Cremont, (not perpetual, as stated by some,) Bell de Paris, Gelineau, La Chalonaise, Prince Imperial. Belgian: Excellente, Ne Plus Ultra, La Reine, a white sort distinct from the Bicton Pine, and of finer flavor; Triomphe de Liege, La Delicieuse, La Constanté, (new.)

An Alpine Strawberry is known here without runners—red and white. They make beautiful borders or edges in a kitchen garden, and fruit throughout the season: and a seedling from Sir Harry, also without runners, producing large fruit, which will of course be difficult to propagate, but must finally prove an acquisition.

Strawberry wine is strongly advocated; it is said to be superior to currant, and a pleasant, cooling drink may also be made by pouring boiling water on the fruit, with the addition of a little sugar and lemon juice.

Some fine Black Hamburgh grapes grown out of doors, were lately exhibited, decidedly the best examples yet shown. They were stated to have been grown on a border of the following description: the natural soil to the depth of two feet six inches, was trenched out, and refilled with brickbats and old mortar, on the top of which were laid turfs, cut rather thick, with the grass downwards. This makes a good foundation for the roots, and keeps the loose soil from running into the sub-drainage. On the top of this, eighteen inches of well-decayed dung and decayed vegetable earth, in equal proportions. The vines are stated to be vigorous and healthy, and free from mildew, &c. These were also reported to have been grown on Hoare's principle, the fundamental part of which is identical with that upon which the *Raspberry* is cultivated,—namely, inducing the plant *each year* to produce new branches from the base; these bear a crop in the second year, proportioned to the strength of the main tree, and are afterwards cut away. This is a general rule, which may be applied to all trees and shrubs,—roses, for instance,—whose energy in blossoming depends on the strength of their previous year's wood.

The Calceolaria, so long a favorite florists' flower here, seems to be giving up the ghost. The gardeners say it is unfortunate, but it seems nevertheless true, that Calceolarias are becoming less useful than they were a few years ago, as ornaments to the flower garden. On all sides there is an outcry against them. Whole beds of them die off, or become so broken and gapped by plants dying out, as to disfigure the whole arrangement of which they were a part. It is difficult to account for this.

A discussion of interest to agriculturists is being carried on regarding the course to be pursued with exhausted land, some of which has been tilled ever since the Roman occupation.

Mr. Mechi, some think, grows his wheat at too great a cost. When the inclosure of fresh land is exhausted, then begins the real struggle for improving our resources upon the acreage that *we have*. The question is not, as simply stated, "how to grow two blades of corn where but one grew before," but how to grow them at *less cost*. There is hardly a farmer now who does not know that the second blade may be bought too dear; that the essence of improvement in any and in every branch of industry, manufacturing or agricultural, lies not in the bare problem of increased production, but in that relatively with diminished cost. And is not *this* the pressing problem *now?*

We have at South Kensington what is called a "Food Museum," in which everything eatable from all nations is exhibited. A large addition has been made by a remittance of Chinese edibles from China, forwarded by Sir John Bowring. They consist of specimens of tea, preserves, sharks' fins, and birds' nests, and cases of prepared meats for soups, conspicuous among which are some suspicious looking legs and arms that make one think of kittens and puppies, but they prove to be antelope legs! The wines are numerous, ale made from rice and flavored with the flowers used for the same purpose in preparing tea. Tobacco in many forms is abundant; one parcel is labelled "mild, for women." Everything finds its way to London.

The power of straw as a conductor of electricity has been utilized in France by employing it for conductors or lighting rods. Experiments show that an electrical shock sufficiently powerful to kill an ox may be discharged by a single straw! As ever, yours, HORTULANUS.

DEAR HORTICULTURIST:—You may have thought me very severe in my first letter from this metropolis of politics, and to tell the truth I did feel indignant at some things that my eye lighted on. Great sums have been expended on architecture here, and great amounts have no doubt been jobbed and wasted, but there is something to show, and I am not a little proud of my townsman's skill in erecting the new capitol buildings. Mr. Thomas U. Walter is one of the fortunate individuals who in this and the Girard College has made his mark. But what I want to arrive at is, the sad discrepancy of things around. What would *you* say if you saw a stately mansion costing a fortune, erected in the midst of a brick yard, and occupied by the owner, without a tree planted or an enclosed garden? You would smile, no doubt; and if there is a similitude in the erection of a capitol costing a nation's fortune almost, and a building for an institute to disseminate knowledge among men, with neither of them surrounded by as much civilization as you find at a gentleman's country seat, you would at least *wonder* and inquire the reason. You would find assembled at Washington all sorts of people, except tree lovers and admirers of lawns; you would ascertain that the place is governed as Cuba is, by a succession of masters, who stay too short a time to do any good to the public grounds, and who if they did it would have the mortification of finding it undone by their successors.

What we now want is a governor like Tacon, at Havana; he made great improvements in drives and avenues, which will redound to his honor as long as they last. At Washington we want an enthusiastic Tacon, and we don't care whether he fills the presidential chair or an inferior office; if he has the enthusiasm, he can gather around him sufficient taste to accomplish the simple business of keeping the grounds, after they are planted in proper order. Why, your friends would undertake the work without charge beyond a dollar or two a day! I venture to assert that the nurserymen, gardeners, and amateurs of the United States would agree to furnish ornamental trees for the whole job, gratuitously; aye! and a friend to plant them too, if necessary, in order that we might have a national example of what public grounds should be. But this would scarcely be accepted. Everything here is done by *appropriations*, and it just so happens when a thousand or two dollars only are wanted, every man in Congress has got so stingy of the public means, that though they vote books and postage stamps to themselves, there is no chance of getting a Cedar of Lebanon placed where the ash-heaps stare at the intruder, or a group of Portugal Laurels, here and there, in a climate in which they are perfectly hardy. A magnificent Magnolia grandiflora is standing in the garden of the venerable

and able Peter Force, Esq., to show what might be done by a proper selection of trees, but there it is unobserved and unappreciated, while marble walls and fine ceilings costing millions, are built to hold the rattle-traps of rejected inventions. A well-balanced mind would shave off a hundred dollars from some nonsensical ornamentation to give a civilizing effect out of doors, if it could accomplish it in no other way. But there are other modes of doing it; if nothing better offers, let us recruit an army of gardeners and nurserymen, march down to Washington and storm it; let us pitch the useless public documents into a paper mill, and use the proceeds to pay a laborer a dollar a day to plant and mow the public grounds! What say you?

Washington, D. C. J. J. S.

A FEW MORE WORDS ON PEAR CULTURE.—In manifesting his intention of "setting me over on his side of the question," my friend Mr. Allen has made one or two remarks which seem to require a reply from me, as he is evidently laboring under an impression which is quite erroneous. I cannot controvert his statement that he "never saw trees better cultivated," but when he asserts that "they could not be better cultivated," I must take the liberty of assuring him of his great mistake. The greater part of them have stood among vegetable crops and received the same culture that the crops themselves did; a few have been surrounded by grass, and experienced nothing better than an annual spading, with an occasional application of manure; rarely has a tree received any especial culture or attention unless out of condition and evidently requiring it.

The "number of trees now living," which Mr. A. desires to know, I cannot at this moment precisely state; it is probably a little less than three hundred. The last season, notwithstanding the great dearth of fruits, the small proportion of trees which *did* bear, produced a sufficient quantity to enable us to dispose of several barrels, at prices varying from three to six dollars per bushel, besides the considerable quantity required for home consumption.

My plan of intermixing dwarfs with standards, which Mr. A. interprets "as he understands it," I will explain. My idea was, that the dwarfs should be removed and replanted, not left "to die out;" and that when the standards had attained full size, each alternate one, having borne sufficient fruit to justify the sacrifice, might be cut out, which would leave intervals of "twenty-five or thirty feet." In this manner, I think, the ground would be most economically occupied.

I am surprised that Mr. A. should at this day express the opinion that any sort of quince is equally suitable for a stock, in the face of all the experiments which have proved the direct contrary. "A quince is a quince," undoubtedly, and so is an evergreen an evergreen, yet no one would hold, on that ground, that the live oak and hemlock are equally adapted for ship timber. JNO. B. EATON.

ROSES.—DEAR SIR:—The "Vicomtess de Cazes" is certainly a most magnificent rose, and almost constant in bloom. It does well planted out in the summer, and the best protection you can give *any* rose in the winter is simply to throw a cedar bush upon it, and cut the young wood down in the fall; you may depend that is the great secret of preserving tender roses in the winter: and the best soil you can grow roses in is a strong rich *loam*. Roses will not do any good in a light soil, rest assured; for an experience of twenty years has proved to me (after many experiments) that roses will grow better in rich virgin clay, than in a garden that has been under cultivation. The best plan for you to do would be to dig a hole, say two feet, or eighteen inches square, or round, as suits best; get some *sod, cut thin*, from an *old common*, and mix it about one-*half* or one-*third* with rotten cow-manure, without sand, and my word for it your roses will grow and bloom, and fully repay you for any extra trouble. Many of our gardeners here (and most persons) wonder how it is I have such splendid blooms upon my roses, and the only remark I make to them is that they don't get the right kind of soil for them. I always have *two* large *heaps* ready for use, and I have never used a pound of *peat* since I have been in the business, and I could show some of as well grown plants (that gardeners in general think wont grow without peat) as you would wish to see. I shall say no more upon that sub-

ject, as you will think me an *egotist*; but some people think me crazy upon *roses*. They are my favorites. Yours truly, G. P.

Columbus, Georgia.

So far as the winters are concerned, I prefer our own to those of the North. Should those wings which you solicit as a bird of passage ever come to you, I think you will find many a pleasant resting-place familiar with your labors, even in this exclusive kingdom of old king cotton.

I think I could show you even now a sight which in its native grace transcends the highest effort of foreign horticulture. I have introduced the Yellow Jasmines very freely into my lawns, training them in *masses* on low trellisses. The effect at this present moment is indescribable. A "Geyser," with emerald waters and golden spray, is the nearest I can come to it. Not a cataract, but a softly falling fountain of blossoms. The buds and blossoms could, I am sure, be counted by millions, and all Paris could not change their arrangement for the better.

Time would fail me to tell you of all the verdure and fragrance which are now heralding the spring with us.

Pears from New Jersey, set out last fall, are in bloom. Peaches, ditto. Prunus Chicasa loading the air with fragrance. Gardens under full headway. *Woschitoes, ditto!*

By all means keep up the pear-fight! We *must* raise them if only for the excitement. I am much pleased with Field's book. Sorry that Mr. Allen should rub him so hard; but let the truth prevail. Among so much *humbug* a mere mistake is a refreshment, and a naked truth beyond all price.

Good luck to Mr. Allen who writes and the *Horticulturist* that prints the truth as they see it!

Columbus Co., Georgia, Feb. 19, 1859.

MR. EDITOR:—Will you ask your learned readers "Why spring is the most dangerous season to walk abroad?" If they cannot tell, just give the following good and sufficient reasons:

Because the brooks are all *brawling*, the leaves are all *shooting*, and the *bull-rush-is in the meadow!*

P. S.—Why is the sewing machine the greatest invention of the age? Because it saves all needles (s) trouble! M.

FOURTH MASSACHUSETTS LEGISLATIVE AGRICULTURAL MEETING.

[Reported by John C. Moore, for the N. E. Farmer.]

The meeting of this Society in Representatives' Hall, last Monday evening, was well attended. Hon. Marshall P. Wilder was called to the chair.

The subject for discussion was,—"*Fruits, and the Culture of Fruit Trees.*"

The Chairman said it gave him great pleasure to make a few remarks on the subject of discussion, which was one of the most important that could be debated. Fruits, as articles of market value, were among the most important products of the farm, and as much so to the country as to the commonwealth. Their cultivation had made great progress among us within the past fifty years. The crop in this State in 1845 was valued at $700,000. In 1855 its value was $1,300,000. In 1860 it could not be less than two millions of dollars—more than the value of the wheat, oats, rye and barley in the State. Such had been the results of pomological science in Massachusetts, that her exhibitions sustained the highest rank. One gentleman, who had had opportunity of judging, said that he saw more choice fruit at one of our exhibitions here than he saw at twenty in Europe; where, as in Germany, the greatest encouragement had been given to pomology by the government. But great as was our credit here, it was eclipsed by that of California and Oregon Territory, correspondence from which regions showed that they were blessed with wonderful natural facilities for the growth of fruits of all kinds. Col. Wilder read a letter from a correspondent at Munroe, Oregon, stating that he had forwarded a box containing an apple forty ounces in weight, and twelve others averaging a pound and a half each! Another correspondent from the same region informed him that ten millions of nursery trees had been sold in Willimet Valley; and Col. W. added that at Washington, a few days ago, he saw a pear from that place which weighed four pounds! Grapes, when their value was considered, either as an article of luxury or commerce, had important claims on our attention in respect to the best sorts to cultivate, and best modes of cultivating them. The pear crop in this State was valued at $100,000 per annum, and also demanded a full share of attention, with respect to kinds best suited to our soil, and to the most approved manner of

cultivation. We had among us many varieties of pears adapted to our climate and soil, and of these varieties the Bartlett, Vicar of Winkfield, and others which he named, were well adapted.

The following were recommended as the *six* best varieties of apples:—the Williams, Early Bough, Gravenstein, Fameuse, Hubbardston Nonsuch, and the Baldwin; and if *twelve* varieties were desired, the Red Astracan, Rhode Island Greening, Ladies' Sweet, Porter and Talman Sweet might be added.

For pears the following were recommended:

Best six pears on their own roots—Bartlett, Urbaniste, Vicar of Winkfield, Buffum, Beurre d'Anjou, and Lawrence.

For the best twelve, add—Rostiezer, Merriam, Doyenne Boussock, Belle Lucrative, Flemish Beauty and Onondaga.

Best six on quince roots—Louise bonne de Jersey, Urbaniste, Duchess d'Angouleme, Vicar of Winkfield, Beurre d'Anjou, and Glout Morceau.

With regard to the conditions of proper cultivation of fruits, no great success could ever attend the labor of producing them unless it was conducted with a care equal or superior to what was spent on any other kind of production. One of the primary and most essential conditions had proved itself to be thorough draining, as through its operation the more troublesome diseases and parasitical affections were obviated. This thorough drainage, Col. Wilder insisted, was an absolute associate of success. He then made a few remarks on the great necessity of keeping the soils of orchards in a rich condition, by manuring, and of planting the various descriptions of trees in the soils best suited to them. He repudiated the fashion of adopting too many foreign trees; for, as a general principle, trees and plants flourished better on the soil of their origin than they did in localities foreign to them. Col. W. recommended raising seedlings, as on them we would ultimately have our surest dependence for good reliable fruit trees. We had doubtlessly a number of fine fruits already native to the soil—at the head of which stood the Baldwin apple, of which 50,000 *barrels* were last fall exported from this city. At a late meeting at Rochester, N. Y., the Baldwin had two marks of merit to one for any other kind, and the others which received the next highest commendations were the Rhode Island Greening, the Russet, and the Tompkins County King. Col. Wilder went on to give the statistics of apple and peach culture in the West and South, showing that it was much more extensive than was generally believed. He concluded by saying that he hailed with pleasure the wide-spread interest now manifested in relation to the cultivation of the grape. The time, he said, was within the recollection of some present, when the Catawba and the Isabella were first brought into notice. Hundreds of cultivators were now raising seedlings, and the day would soon come when our markets would vie with those of Italy, Sicily, and other grape-growing countries, where this luscious fruit is not only a luxury to the opulent, but the food of the humblest peasant. Our native wines were attracting attention in Europe, and at a late convention in Belgium, our Catawba was pronounced superior to the best varieties of Rhine wine. Our own Concord grape, also, had attained great estimation among wine-growers. We have been compelled to give merely the substance of Col. Wilder's remarks.

PENNSYLVANIA HORTICULTURAL SOCIETY.

The stated meeting for March was held on the 15th; the display of flowers and flowering plants was remarkably fine for the season, and, compared with former exhibitions, gave decided evidence of improvement in the quality of the articles contributed.

We are indebted to the Secretary for a full report of the meeting, which was too late for insertion in this number.

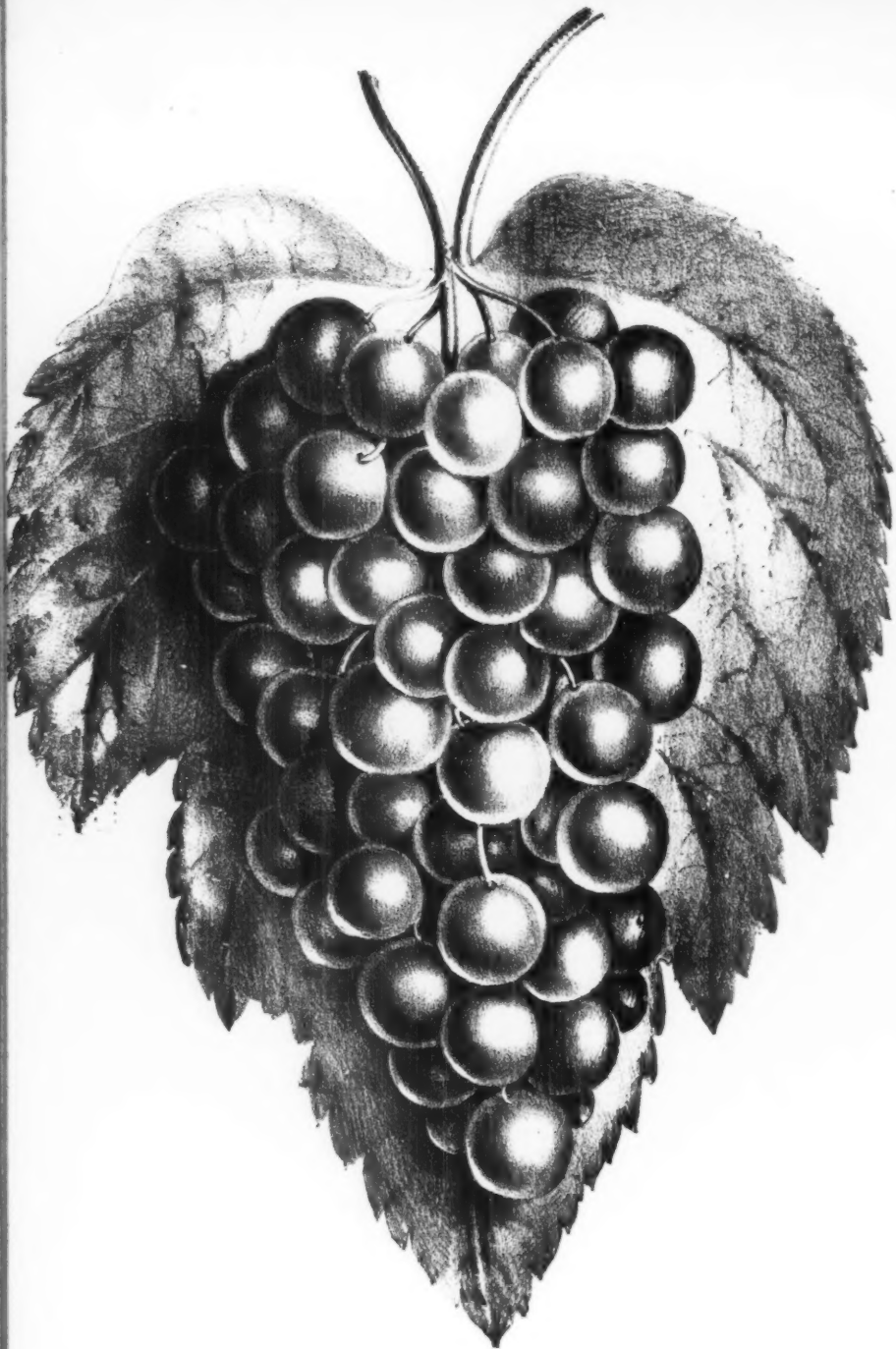
We append the following abridgment:

In collections of plants, those from the garden of Dr. Rush contained fine specimens of Begonia manicata, Bletia Tankervilla, Centradenia floribunda, Francisea eximia, and several choice Azaleas. James Dundas sent a fine Eriostemon nerifolia, also beautifully-flowered plants of Begonia Sandersii, Ryncospernum jasminoides, Chorozema Lawrenceana, and Mahevina Oderatissima. A choice display of Azaleas from the same contributor, contains among others, fine plants of Iverqana, Extreamii, Criterion, Trotteriana, and Duke of Wellington.

Peter McKenzie exhibited a large number of plants; in this list we observe several new Acacias, Ardisias, Camellias, &c. D. R. King also contributed plants in flower, basket of cut flowers, and a "funeral chaplet of unique and appropriate design." In the articles sent by Thomas Meehan, an assortment of 40 varieties of Hyacinths, attracted much notice.

John Auspach, B. P. Hutchinson, A. J. Bucknor, John Gray, J. Habermehl, Robert Buist, and Robert Kilvington, also contributed largely in plants and flowers. The collections of camellias are noticed as being particularly fine.

Mushrooms and cucumbers of extra size, from the Rev. J. M. Richards and A. J. Bucknor. Lettuce from John Gray and James Jones, and cucumbers and asparagus from C. F. Abbot, are also enumerated. We regret our inability to publish the report in full.



HARTFORD PROLIFIC

for

THE HORTICULTURIST